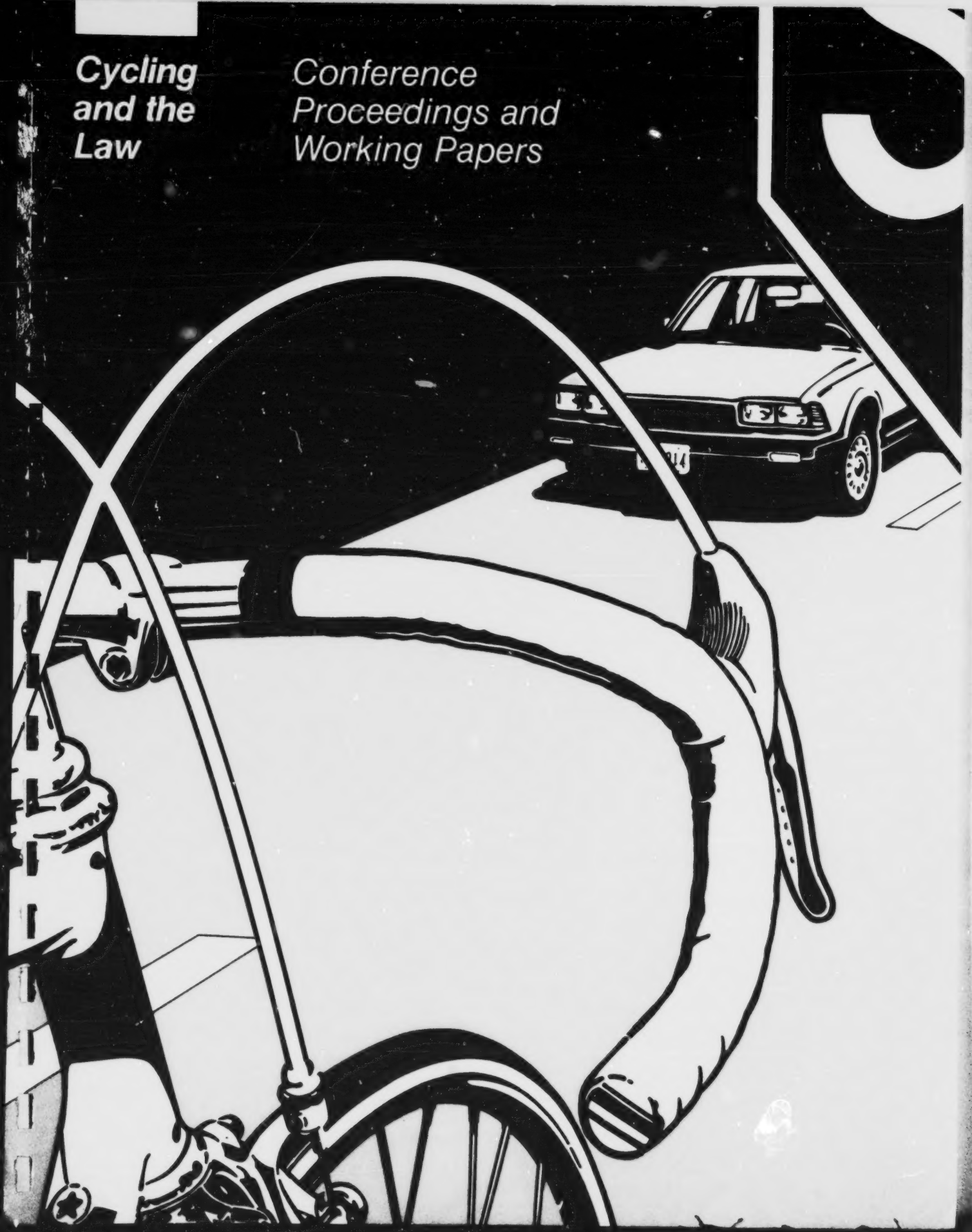
Cycling and the Law

Conference Proceedings and Working Papers



CYCLING AND THE LAW

CONFERENCE PROCEEDINGS
AND WORKING PAPERS

City of Toronto

February 1985

CONFERENCE ON CYCLING AND THE LAW

JANUARY 4-5, 1985

THE DELTA CHELSEA INN, TORONTO

sponsored jointly by

THE TORONTO CITY CYCLING COMMITTEE

and

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Proceedings and Working Papers prepared by staff of the City of Toronto Planning and Development Department with the assistance of members of the City Cycling Committee.

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PREFACE

I am delighted to report that the Conference on Cycling and the Law was a solid success. These Proceedings are to serve as a detailed record of the deliberations and decisions of the Conference which should assist all those working towards safer cycling.

After extensive discussion through two days of workshops and plenary sessions, conference participants and observers reached a consensus for proposed amendments to Ontario's Highway Traffic Act, municipal by-laws, enforcement procedures and product safety standards. All the amendments were designed to achieve a safer cycling environment.

Those involved in the Conference, as organizers, participants and observers, were involved as individuals. None of the resolutions adopted here necessarily indicate that the organizations from which these individuals were drawn support the resolutions.

However, there was an impressive meeting of the minds of those present on the issues at hand. The kind of co-operation exhibited by conference participants from a wide range of backgrounds and interests plus the establishment of Working Committees on Cycling and the Law, Product Safety and Cycling Education bodes well for the achievement of the principles adopted by the Conference. We look forward to the realization of these objectives.

Jack Layton
Conference Chairman

PRINCIPLES

These principles were adopted by the Conference:

General

A. "The bicycle is a legitimate vehicle and should be an integral part of the transportation system."

B. "A major barrier to safe cycling is a lack of understanding and knowledge on the part of motorists, cyclists, pedestrians and other road users about their rights and responsibilities to share the road."

Traffic Law

C. "The same traffic law should apply to bicycles as to other vehicles, except as required by the special nature of the bicycle."

D. "The law should be drafted in a way which requires mutual responsibility for traffic safety among all road users, including motorists, pedestrians and cyclists."

E. "Following rules of the road is in the interests of all road users since the intention of rules of the road is to facilitate the safe, efficient and predictable movement of traffic."

Enforcement

F. "That in increasing enforcement of cycling-related laws, it be taken into account that the impact, influence and repercussions on children are different than on adults."

G. "That enforcement should encourage responsible cycling."

H. "That paralleling the need to prosecute cyclists' violation of the law is the need to prosecute violations of the law by other road users as such violations pertain to cyclists."

Product Safety Standards

I. "There should be a standard of safety for bicycles."

J. "There should be a standard of safety for bicycle accessories."

K. "There should be a standard of safety for cyclist safety equipment and apparel."

L. "There should be a standard of safety to which the bicycle should be maintained."

RESOLUTIONS

These resolutions were adopted by the Conference:

Traffic Law

1. That the Government of Ontario be requested to amend the Highway Traffic Act to include specific mention of bicycles in the definition of a "vehicle" in order to clarify the fact that the bicycle has been, is and will continue to be considered to be a vehicle.

2. That the Government of Ontario be requested to review and revise Section 127 of the Highway Traffic Act with a view to making it consistent with the latest edition of the Drivers' Handbook. Problems with sub-sections (2) and (5) were noted by Conference participants. (Note: These sub-sections deal with the allowance of sufficient room for the cyclist by passing motor vehicles and vice versa.)

3a. That the Government of Ontario be requested to consider adding to the Highway Traffic Act a definition of "as close as practicable to the right hand side of the road" to take into account the concerns of cyclists. Specific reference was made to cyclists' need to ride in a straight line path clear of such hazards as drain grates, road debris and parked vehicles. The following legislation from the State of Washington was considered to be a useful example:

> "Every person operating a bicycle upon a roadway at a rate of speed less than the normal flow of traffic at the particular time and place shall ride as near to the right side of the right through lane as is safe except as may be appropriate while preparing to make turning movements or making turning movements, or while overtaking and passing another bicycle or vehicle proceeding in the same direction. A person operating a bicycle upon a roadway or highway, other than a limited-access highway, which roadway or highway carries traffic in one direction only and has two or more marked traffic lanes, may ride as near to the left side of the left through lane as is safe. A person operating a bicycle upon a roadway may use the shoulder of the roadway or any specifically designated bicycle lane if such exists.
>
> Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles."
>
> (State of Washington, Revised Code of Washington, 46.61/770 (1) & (2).)

3b. That municipal governments in Ontario be requested to revise their by-laws to deal with the bicycle in the same way as any other vehicle, as far as the matter of riding to the right is concerned.

4. That municipal by-laws be amended to prohibit riding of bicycles on the sidwalks by persons 12 years of age and over, except where permitted by signs.

5. That the Government of Ontario be requested to amend the Highway Traffic Act to permit right arm extended as a legal right turn signal for bicycles in addition to the currently permitted signal.

6. That the Government of Ontario and municipalities throughout the Province be urged to amend appropriate legislation to prohibit the riding of bicycles on pedestrian crosswalks and cross-overs.

7. That the Government of Ontario and municipalities throughout the Province be urged to amend appropriate legislation to ensure that a dismounted cyclist walking with his or her vehicle is considered to be a pedestrian, except where inappropriate.

8. That the existence of an adjacent bicycle path is no justification for the exclusion of bicycles from a road. This does not preclude specific exclusion of bicycles and slow-moving vehicles from high speed highways where satisfactory alternate routes exist.

9. That cyclists should be considered legitimate users of arterial roads.

10. That the Government of Ontario be requested to amend the Highway Traffic Act, Section 57(5) to provide that every cyclist shall be capable of giving an audible signal which shall be sounded whenever it is reasonably necessary to notify pedestrians or others of the vehicle's approach.

11. That the Government of Ontario be requested to conduct studies, in conjunction with appropriate authorities at other levels of government, on the efficacy of cycling helmets for achieving improved cyclist safety. It is not accepted that mandatory helmets should be instituted at this time.

Enforcement

12. That it is undesirable to implement a bicycle registration program.

13. That the Government of Ontario be requested to amend the Highway Traffic Act to provide that where an officer believes an offence has been committed by a cyclist, the cyclist shall identify himself or herself by supplying his or her correct name and address and that failure to do so could lead to arrest.

14. That given the implementation of Resolution 13, licensing of cyclists is not required for enforcement purposes.

15. That although licensing could ensure mandatory bicycle education, it would be more desirable to investigate some alternative means of providing for the education of cyclists.

16. That the possibility of licensing on a province-wide or broader basis for purposes other than enforcement should be examined further.

17. It is recognized that there are particular motorist actions which are particularly dangerous to the operators of small vehicles such as bicycles, and the continued enforcement of laws prohibiting these actions is supported. Specifically, the following problems were identified: failure to yield right-of-way; opening car doors into traffic; unsafe passing; parking offences; failure to set turn signals in advance of starting turns, especially right turns; and driving with "lack of consideration".

18. That in enforcement of traffic laws against cyclists, priority should be given to those actions which cause the most accidents in each community.

19. That police forces throughout Ontario be encouraged to identify and publicize the enforcement priorities in Resolution 18 in each community.

20. That with respect to fines, all cyclist violations under the Highway Traffic Act should be assessed the same minimum penalty as is assessed for motor vehicles.

21. That there is a variety of recreational bicycle path enforcement techniques which should be investigated, besides looking to the police, such as bike patrols as used in Minnesota, or the use of by-law enforcement officers. It is recommended that municipalities investigate these alternatives and move toward implementing some of them.

Product Safety Standards

22. That there should be a product safety standard for regular bicycles sold in Canada.

23. That C.S.A. Standard "CAN3 - D113.1 - M80" should be adopted as the safety standard, with the following sections revised after further review.:

3.3	Chainguards
3.5.1.2	Pedal Clearance
3.7.1.2	Safety Levers
3.8	Tire Dimensions
4.6	Braking (Brake Performance)

and by deleting Section 3.13 - Lighting, including reflectivity, headlamps and rearlamps, with a view to implementation of this Section as a separate standard;

and that both standards be reviewed for updating to include component performance standards reflecting current technology levels in the industry;

and that the bicycle standard be reviewed for possible inclusion of tests on pedals, chains and other components not presently covered by the standard.

24. That C.S.A. Standard "CAN3 - D113.1 - M80" as revised in accordance with Resolution 23, and the lighting standard called for in Resolution 23 should be mandated on a national basis, if the impact on the small manfacturer and importer can be resolved.

25. That there is a need for a C.S.A. Bicycle Helmet Standard and a C.S.A. Certification program for bicycle helmets to be sold in Canada.

ACKNOWLEDGEMENTS

The Conference on Cycling and the Law was the result of hard work on the part of many people. Its success is a tribute to all who assisted. The Toronto City Cycling Committee would like to thank all those who participated in the conference and those who submitted working papers in advance. In addition, thanks go to:

- Denys Beames, Bicycle Researcher, who was the Conference organizer and compiled the Summary and Agenda paper
- Alison Shannon, Bill Silvert, Michel Labreque, Gerry Pareja and Larry Reilly, who were the five keynote speakers
- Jack Layton, Hilda Tiessen, Bill Coffman, Simon Chamberlain, Lorne Falkenstein, and Pierre Ranger, who were Chairmen and Secretaries of the Conference Workshops
- Diana Faulkner of Ryerson Polytechnical Institute, who took care of most administrative details
- Michael Callanan, Mark Smith, Liz Stanley and Yee Wun Wong, who handled registration and numerous behind the scenes tasks
- Svend Naumann, who taped the opening session
- Mr. William Pattison, President of Delta Hotels
- The Management and staff of the Delta Chelsea Inn
- David McCluskey, Bicycle Planner, who contributed throughout the Conference Planning process
- staff of the Planning and Development Department who compiled these Proceedings
- Bill Coffman, who initiated the idea of the Conference

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1. INTRODUCTION

This document contains the proceedings of the Conference on Cycling and the Law held January 4 and 5, 1985.

The Conference was sponsored by the Toronto City Cycling Committee in co-operation with Ryerson Polytechnical Institute. Its purpose was to examine the legal aspects of cycling in Ontario and its municipalities, and to make recommendations for change or clarification in the interests of greater cycling safety.

The Conference was a significant event for two reasons. First, it marked the first time in English-speaking Canada that cyclists and members of groups interested in cycling advocacy had sat down together with representatives of the cycling industry, the cycling trade, police, various levels of government, safety bodies and motorist organizations. Their enthusiasm and work level was high.

Second, and even more significantly, this diverse group was able to achieve a consensus on the basic principles and the resolutions that preface this document. These principles and resolutions cover the bicycle's role and the way in which it should be used and perceived: as a legitimate vehicle on the road, with some special needs. From this basic assumption flowed all the principles and resolutions developed.

"The icing on the cake" was the indication by participants that they wished to establish and serve on Working Committees to further the work begun by the Conference.

From this auspicious beginning, it is hoped will come an era of responsible, co-operative co-existence on the road among motorists, cyclists and pedestrians. It is hoped that the rules of the road, which allow for safe and efficient highway travel, will be better understood and better followed by all road users. It is hoped that this era will encompass not just Ontario and its municipalities, but eventually, all of Canada.

History of the Conference

On January 10, 1984, Bill Coffman, chairman of the Safety and Education Sub-committee of the City Cycling Committee, presented to the City Cycling Committee a proposal that, "as a major contribution to cycling safety, the City Cycling Committee establish and support a Conference on cycling and the law". His concern was that the increase in car/bicycle accidents and the increase in disregard for traffic rules by cyclists and motorists alike indicated that the present laws needed change, clarification and publicizing. The City Cycling Committee endorsed his proposal, and the Conference was initiated.

The Committee members saw this Conference as the first step in their Accident Countermeasures Program, designed to reduce the number of cycling accidents in the City of Toronto. Their main concern was the type of cyclist most common in the downtown area, the kind that makes the most use of the City's road system: the "utilitarian cyclist". The recreational cyclist and the sports cyclist were of concern only as they used the road system, and therefore affected the larger traffic pattern.

Since the main concern of the Committee was the cyclist on the road system, it was decided to bring cyclists together with all others engaged in either using or ensuring safe use of this system: motorist representatives, regulating, safety and policing bodies, as well as representatives of the cycling industry and trade whose livelihood could be affected by the Conference outcome.

In July 1984, Denys Beames was hired by the City's Planning and Development Department on behalf of the City Cycling Committee. As Bicycle Researcher, his task was to implement most parts of the Accident Countermeasures Program. Developing and holding the Conference became his first major undertaking. It was decided that holding the Conference early in January of 1985 would be appropriate. This event would kick off the tenth anniversary of the City Cycling Committee and would serve to open the Safe Cycling campaign that was the second objective of the Accident Countermeasures Program. The Conference results would - it was hoped - underline the importance of that campaign.

The Conference participant list and their agenda were established simultaneously. The Bicycle Researcher proceeded by canvassing cyclists and other interested parties to determine what the major areas of concern were and who were the most necessary people and organizations to invite to participate in the Conference. Participants were invited to submit discussion papers on the major areas of concern and on any other areas they felt needed addressing. These working papers, most of which are reproduced in the following chapters, formed the basis of the Summary and Agenda document that initially guided the Conference.

It was decided that "cycling and the law" was too large a topic for such a short conference. But there seemed to be three major areas of concern that could be dealt with simultaneously: cycling and traffic law, enforcement of cycling-related laws and product safety standards. Therefore workshops in all three areas could be held concurrently, if plenary sessions were used to provide whole-group feedback and to make decisions about suggestions arising from specific workshops.

This process became the Conference format: Plenary -- Workshop -- Plenary -- Workshop -- Plenary. There was one significant departure from the proposed agenda: a set of overall principles about cycling had been proposed in one discussion paper whose authors had felt the agenda was too specific. This set of principles became the first order of business for all the workshops, followed by the more specific topics set out in the agenda, plus some additions.

Chairmen and Secretaries

Traffic Law Workshop

Chairman: Jack Layton, Alderman, City of Toronto
and Chairman of the City Cycling Committee
Secretary: Simon Chamberlain, City Planning and
Development Department

Enforcement Workshop

Chairman: Hilda Tiessen, City Cycling Committee
Secretary: Lorne Falkenstein, City Cycling Committee

Product Standards Workshop

Chairman: Bill Coffman, City Cycling Committee
Secretary: Pierre Ranger, City Cycling Committee

Plenary Sessions

Chairman: Jack Layton
Secretary: Simon Chamberlain

Conference Results

The Conference produced a high level of consensus on a large number of items in a limited time. The agreement of so many disparate groups has established a solid basis for legislative change. Significantly, three ongoing Working Committees were established as well, a Working Committee on Cycling and the Law, a Working Committee on Product Safety Standards, and at a tangentially-related seminar, a basis for establishing a Working Committee on Cycling Education. There is agreement on the need for more work to properly integrate cycling into our society, and there is a will to work on the problem.

Format of the Proceedings

In order to maximize the usefulness of this document as a research and working tool, it has been laid out in the following manner. The sections are arranged to allow the reader to go quickly to any Principle or Resolution or referred question and read the relevant Conference discussion on that issue, and then the relevant sections of the pre-conference working papers. In this way all relevant discussion of an issue is located with the issue in question. The objective is to minimize searching and maximize accessibility for the document user. The format used throughout is:

RESOLUTION #: TITLE (or Principle or Item #)

ORIGINAL AGENDA ITEM:
Question:
Responses:
Comment:
DISCUSSION:
At the Workshop ...
At the Plenary ...
WORKING PAPERS

The section headed "Original agenda item" is reproduced from the Summary and Agenda document which formed the working agenda of the Conference (Appendix E). The "Responses" referred to are those received from participants in advance of the Conference. The "Comments" are those of Denys Beames, reflecting issues raised in pre-conference submissions.

Occasional double asterisks (**) in Chapters 3-6 identify matters which, in the opinion of those preparing these Proceedings, may merit further attention by the ongoing Working Committees or by the City Cycling Committee. Specific referrals to the Working Committees are identified by underlining.

Note: The Workshop and Plenary Sessions were large, varying between 25 and about 100 participants, very few of whom were known to the secretaries in advance. Since many participants did not identify themselves at the time of speaking, the Discussion notes do

not consistently attribute comments to specific speakers, and may in a few cases have attributed remarks to the wrong individual. We apologize for any resultant embarrassment or confusion.

2. PRINCIPLES

Prior to the Conference a group of nine "concerned cyclists", some of whom are present or former members of the City Cycling Committee, prepared a set of principles. This was sent to all participants, with an introductory note from the authors saying, "we present below a set of overarching principles which we hope will be used as a guide by all participants."

In their opening sessions, each of the Conference's three Workshops considered the proposed general principles which applied to its own area of mandate. At subsequent Plenary sessions, the Conference as a whole adopted a modified version of the principles in order to guide its work.

GENERAL PRINCIPLES

PRINCIPLE A: THE BICYCLE IS A LEGITIMATE VEHICLE

"The bicycle is a legitimate vehicle and should be an integral part of the transportation system."

ORIGINAL WORDING PROPOSED:

"Because the bicycle is an effective, energy efficient, non-polluting, healthful and accessible form of transportation, it is a desirable part of the transportation system."

DISCUSSION:

The Traffic Law and Product Standards Workshops recommended adopting the principle as originally proposed. The Enforcement Workshop recommended that the original wording be amended to read:

"The bicycle is one element of an integrated urban transportation system."

At the Enforcement Workshop it was felt by many that the wording of the original principle was emotionally loaded and could be read as implying that the bicycle ought to be accorded a superior status to that accorded to other vehicles. Others pointed out that if the bicycle is not a desirable or legitimate part of the transportation system, then bicycling ought to be discouraged rather than facilitated. K. Sutherland affirmed that, as one of the originators of the principle, her intent was to have the conference affirm that the bicycle is legitimate and is desirable. While there was widespread sympathy expressed for this view, some insisted that the proposed principle still went too far. They felt that while the bicycle was not illegitimate or undesirable, it was unnecessary to make a positive statement. The amended version of the principle was agreed to by all and was seen as a way of addressing the concerns of both sides.

At the Plenary, the original principle was criticized by some non-cyclists as "loaded in favour of cyclists", and unfairly implying that cycling was more desirable than other forms of transportation (e.g. walking). Participants pointed out that there are circumstances in which cycling is not desirable, such as on expressways; in rebuttal,

others said this was true of any mode of transportation. It was argued that in some circumstances cycling may not be effective, energy efficient, etc.

The Enforcement Workshop's alternative wording was critized by various participants for its lack of any mention of integration, its failure to get across the legitimacy of cycling, and its exclusion of rural cycling. Various alternative wordings were proposed before arriving at consensus on the adopted principle.

PRINCIPLE B: KNOWLEDGE OF RIGHTS

"A major barrier to safe cycling is a lack of understanding and knowledge by motorists, cyclists, pedestrians and other road users about their rights and responsibilities to share the road."

ORIGINAL WORDING PROPOSED:

"That the major barrier to safe cycling be recognized as a lack of knowledge and understanding by both motorists and cyclists about their rights and responsibilities to share the road."

DISCUSSION:

At the Traffic Law Workshop the inclusion of pedestrians was recommended. A change from "the" to "a" major barrier was recommended, on the basis that there are numerous major barriers (including lack of training, education and skills).

The Product Standards Workshop recommended adoption of the principle as originally worded.

At the Enforcement Workshop, it was recommended that the original wording be amended to read:

"One major barrier to safe cycling is a lack of knowledge and understanding by all roadway users about their rights and responsibilities to share the roadway."

Concern was expressed that the principle as originally drafted focussed on motorists and bicyclists exclusively, and left out references to pedestrians and possible bicyclist/pedestrian conflicts. All agreed to amend this oversight. The references to "roadway users" and "the roadway" were utilized because it was thought that these terms would include pedestrian facilities such as paths and sidewalks.

Concern was also expressed about the fact that, as originally worded, the principle implied that education was the major way to address bicycling problems. Many affirmed that this was indeed their considered conviction, but a few felt that placing the stress on education might jeopardize other programs, such as facility construction. However, it was pointed out that bicycling facilities have been found to be less safe than bicycling on the road and therefore facility construction could hardly be presumed to be conducive to cyclist safety. In the interests of reaching consensus it was agreed to weaken the language from "the major barrier" to "a major barrier".

The amended wording was agreed to by all at the Enforcement Workshop.

At the Plenary, it was pointed out that the term "road" should be taken to include sidewalks, shoulders, etc. (changing to "roadway" was rejected because legally roadway means only the travelled pavement). The words "and other road users" were added to make the principle all-inclusive.

TRAFFIC LAW PRINCIPLES

PRINCIPLE C: APPLICATION OF TRAFFIC LAW TO BICYCLES

"The same traffic law should apply to bicycles as to other vehicles, except as required by the special nature of the bicycle."

ORIGINAL WORDING PROPOSED:

"As far as possible, the law as it applies to bicycles should parallel the law as it applies to motor vehicles, taking into account the special nature of the bicycle."

DISCUSSION:

At the Law Workshop there was consensus on the need to improve clarity by changing "law" to "traffic law", "motor vehicle" to "vehicle", and "parallel" to "the same" (the term "identical" was rejected as too specific). It was agreed that the rider about the "special nature of the bicycle" would cover matters such as the use of bicycle paths.

The Plenary session adopted the wording recommended by the Law Workshop without debate.

PRINCIPLE D: MUTUAL RESPONSIBILITY AMONG ROAD USERS

"The law should be drafted in a way which requires mutual responsibility for traffic safety among all road users, including motorists, pedestrians and cyclists."

ORIGINAL WORDING PROPOSED:

"The law should be drafted in a way which encourages safe cycling by promoting mutual responsibility for traffic safety among all road users: motorists; pedestrians; and, of course, cyclists."

DISCUSSION:

The Law Workshop recommended deleting the words "safe cycling by promoting" as unnecessary.

At the Plenary "encourages" was changed to "requires", on the basis that the nature of law is to impose requirements. The word "including" was added so no other road users would be excluded. After debate, the Conference voted to delete the words "of course" since they appeared out of context and were objectionable to some participants.

PRINCIPLE E: RULES OF THE ROAD FACILITATE TRAFFIC FLOW

"Following rules of the road is in the interests of all road users since the intention of rules of the road is to facilitate the safe, efficient and predictable movement of traffic."

ORIGINAL WORDING PROPOSED:

"Following the rules of the road is in the interest of all road users since the purpose of the rules of the road is to facilitate the safe, efficient, and predictable movement of traffic."

DISCUSSION:

The Law Workshop recommended the original wording for adoption.

At the Plenary, the addition of the words "bearing in mind the changes in traffic law recommended in our resolutions" was proposed; following debate this addition was rejected as unnecessary and perhaps inappropriate. Deletion of "the" in front of "rules of the road" was agreed to, emphasizing that this is a principle of general applicability, and not meant to refer strictly to that Section of the Ontario Highway Traffic Act known as "The Rules of the Road" in the form it takes at this time.

ENFORCEMENT PRINCIPLES

PRINCIPLE F: IMPACT OF ENFORCEMENT

"That in increasing enforcement of cycling related laws it be taken into account that the impact, influence and repercussions on children are different than on adults."

The original wording was the same.

At the Enforcement workshop and at the Plenary session this principle was adopted unanimously without substantive discussion.

PRINCIPLE G: PURPOSE OF ENFORCEMENT

"That enforcement should encourage responsible cycling."

ORIGINAL WORDING PROPOSED:

"That enforcement should not discourage cycling per se."

DISCUSSION:

At the Enforcement Workshop some discomfort was expressed with the words "cycling per se". It was felt that the revised version stated the intent of the principle more clearly. There was no expressed reason for the change from negative to positive wording other than the popular prejudice against negatively worded statements. The amended wording was agreed to by all.

At the Plenary session this principle was adopted without debate.

PRINCIPLE H: PROSECUTION OF TRAFFIC ACT VIOLATIONS

"That paralleling the need to prosecute cyclists' violation of the law is the need to prosecute violations of the law by other road users as such violations pertain to cyclists."

ORIGINAL WORDING PROPOSED:

"That paralleling the need to prosecute bicyclists' violation of the law is the need to prosecute violations of the rights of cyclists by other road users."

DISCUSSION:

At the Enforcement Workshop it was unanimously decided to change the end of the proposed principle to reflect the fact that the law does not prescribe rights for any road users, but only proscribes certain types of action by road users. The authors of the Highway Traffic Act were not afraid to use negative statements.

There was a lengthy semantic discussion of whether to substitute "enforce" for "prosecute" in the amended principle. It was pointed out that the use of "prosecute" might be taken to imply that police have no discretion to give warnings or that all violations of the law would have to be carried through to the courts. H. Tiessen, speaking as one of the people who had drafted the principle, asserted that the word "prosecute" was only chosen because it sounds odd to speak of "enforcing" violations of the law.

At the Plenary session this principle was adopted without debate.

PRODUCT SAFETY STANDARDS

PRINCIPLE I: BICYCLE SAFETY STANDARD

"There should be a standard of safety for bicycles."

PRINCIPLE J: BICYCLE ACCESSORY SAFETY STANDARD

"There should be a standard of safety for bicycle accessories."

PRINCIPLE K: CYCLIST SAFETY EQUIPMENT AND APPAREL SAFETY STANDARD

"There should be a standard of safety for cyclist safety equipment and apparel."

PRINCIPLE L

"There should be a standard of safety to which the bicycle should be maintained."

ORIGINAL WORDING PROPOSED:

- "it is legitimate to require a minimum standard of safety of the bicycle itself, and to require safety equipment on bicycles."

- "There should be minimum safety standards for safety equipment on the market."

DISCUSSION:

The Product Standards Workshop held two separate discussions on the principles. At the first, the original second principle was reworded to make clear that it deals with safety equipment for the cyclist, not the equipment on the bicycle. The workshop also adopted a third principle, that:

"There should be a minimum maintenance standard for the bicycle and bicycle safety equipment."

Debate in this session focussed on whether there were bicycle accident data to indicate that a bicycle standard is needed. Cyclist loss of control, which accounts for 20% of cycling accidents in Toronto, may be caused in part by unsafe bicycles. There is presently no inspection of the bicycle required in car/bicycle accident reports. It was decided that both "in use" and "at point of sale" standards are needed, since bicycles and related safety equipment should meet a standard of safety at all times.

In light of objections raised by other participants during the first Plenary session, the Workshop decided to re-open discussion of the product safety principles.

It was felt that a careful rewording of the principles was necessary to make clear that these standards should be for the bicycle itself at point of sale, for safety accessories attached to the bicycle, e.g. reflectors and lights, for the safety equipment worn by the cyclist, e.g. helmets, reflective belts, lights, and for the bicycle in use.

The Workshop decided that the standard for bicycle maintenance need not be the same as CSA CAN3-D113.1-M80 (see Appendix F), but that this would require more investigation. Many other questions would have to be dealt with by a future working committee: will bicycle mechanics require certification to perform maintenance of bicycles? should the maintenance standard be mandated, and how would it be enforced?

Based on this discussion, the above principles were recommended for adoption, with the minor variance that Principle J, as proposed by the Product Standards Workshop, would read:

"There should be a standard of safety for bicycle safety accessories."

At the final Plenary session W. Silvert proposed deletion of the word "safety" the second time it appeared in Resolutions J and K. W. Coffman disagreed, arguing this would require safety standards for all cyclist apparel and even the most minor of accessories. In rebuttal, W. Silvert pointed out that many accessories, such as front racks, are potentially extremely dangerous. The proposal of limiting the resolution to those accessories "which could be inherently dangerous" was discussed but rejected as too difficult to make operational.

After further debate the Conference agreed, by a vote of 23:16 among those present and voting, to delete the word "safety" the second time it appeared in proposed Resolution J, and to adopt the Resolution as amended.

Resolutions I, K and L were adopted by the Conference without amendment.

A REJECTED PRINCIPLE

A principle originally proposed was:

"Responsible cycling is a safe activity."

DISCUSSION:

At the Traffic Law Workshop T. Dash cited hospital statistics on the dangers of cycling. Chairman J. Layton pointed out that the principle did not lead towards any action, and was therefore not particularly useful. It was agreed to recommend deletion.

The Enforcement Workshop recommended that the following sentence be appended to the original principle:

"Irresponsible cycling is an unsafe activity."

Some Workshop members expressed concern over ambiguity with regard to the term "responsible". K. Sutherland, speaking as one of the drafters of the principle, defined responsible cycling as cycling in accord with the vehicular rules of the road, using proper technique, wearing a helmet, using proper illumination at night, and maintaining one's bicycle in proper working condition. A few seemed to feel that unless some way was found to make this explicit the principle could be misinterpreted. The amendment was seen as a way of stressing that not all ways of cycling are safe, and there was consensus that it should be adopted. A proposal to define safe cycling relative to the location where cycling takes place, rather than to the way the cycling was done, was rejected. Many were strongly opposed to any implication that cycling on arterial roads should be seen as unsafe or undesirable.

The Product Standards Workshop proposed changing the original wording to read:

"Responsible cycling should be a safe activity."

At the Plenary session the alternative of "Responsible cycling should be a safe activity" was rejected. P. Ranger objected to dropping the principle altogether, because of the need to address the view of many that cycling is foolhardy. M. Hattin pointed out that there is no such thing as a safe vehicle. The alternative of "responsible cycling is a reasonably safe (or not unduly hazardous) activity" was put forward but rejected. On the basis that the foolhardiness issue was adequately addressed by other principles, the Conference agreed to not adopt any of the proposed wordings.

ADDENDUM:

PRINCIPLES: BICYCLE NOVA SCOTIA POSITION

Submission from Bicycle Nova Scotia on recommended changes to the Motor Vehicle Act.

The following recommendations are based on these basic guiding principles:

1. Laws governing bicycles should be clear and easily enforced;

2. The bicycle is a valid means of transportation and its use should not be discouraged or hindered unnecessarily;

3. Bicycle law should be as close to motor vehicle law as possible. This serves three functions.

   (i) For adult cyclists who are motorists, it means that they only have to follow one basic set of laws,

   (ii) For motorists who do not bicycle, the rights and responsibilities of cyclists are clearer, and

   (iii) For children, riding a bicycle becomes better training for driving motor vehicles.

For brevity, the following recommended changes are keyed directly to the present Motor Vehicle Act:

1 (aa 6) "bicycle" means a device propelled solely by human power. Current wording is unnecessarily specific and excludes unicycles and tricycles (adult tricycles exist and are similar to bicycles).

1 (ae) and 1 (bz) state that a bicycle is not a vehicle, but 76 (1) makes a cyclist subject to the act - we find this confusing - is it necessary to do it this way? Why not call a bicycle a vehicle?

The recommended changes can be expressed in terms of three basic statements:

1. a bicycle is a vehicle;

2. the driver of a bicycle has the same rights and responsibilities as a motorist, including non-obstructive use of a lane; and

3. a dismounted cyclist is a pedestrian.

Our final observation relates to the use of bicycles by children. Cycling is excellent for children, but there is no point in writing laws expressly for those too immature to understand them. We feel that the law should treat the bicycle as an adult vehicle, not as a toy, and that children who ride bicycles should be taught to ride responsibly (this has long been the approach of the Canada Safety Council). There is no escaping the fact that people who play in the street are likely to get killed - for this reason a bicycle on a roadway can never be treated like a toy.

3. RESOLUTIONS : TRAFFIC LAW

RESOLUTION 1: DEFINITION OF VEHICLE

That the Government of Ontario be requested to amend the Highway Traffic Act to include specific mention of bicycles in the definition of a "vehicle" in order to clarify the fact that the bicycle has been, is and will continue to be considered to be a vehicle.

DISCUSSION:

At the Traffic Law Workshop P. Kirkby pointed out that the bicycle and tricycle are specifically referred to at several points in the Highway Traffic Act (HTA), but not included in the definition of a vehicle. He asked that the Conference recommend that they be included. G. Pareja questioned if this would require a bicycle to carry lights in daytime, but a police representative said this applied only to motor vehicles. Police and legal representatives concurred that all HTA users now recognize the bicycle as a vehicle so there is not an enforcement problem, but that including it in the definition might help to clarify the HTA. B. Skinner (Ottawa police) said there are several sections of the HTA that should probably be amended to read "vehicle" rather than "motor vehicle" (••). Someone asked if including the bicycle as a vehicle would prohibit passing on the right, but was told this applies only to motor vehicles. S. Fram and W. Silvert both argued that there was a real educational and symbolic value in including the bicycle in the definition of vehicle.

At the final Plenary session Resolution 1 was recommended by the Law Workshop and adopted without further debate by the Conference.

WORKING PAPERS

Peter Kirkby, Cyclist

The Highway Traffic Act (RSO 1980 CHAP 198 amend Feb. 12, 1982) - Vehicle (Section 1(39

The Act defines "vehicle" to include both a bicycle and a tricycle. However, neither is named in the definition of a vehicle even though there are specific references to both in the Act.

Recommendation:

1. The Highway Traffic Act should be amended such that "bicycle" and "tricycle" be included specifically in the definition of "vehicle".

(Note: For Working Papers re Definition of Bicycle, see Chapter 6, Item L. & P.)

RESOLUTION 2: VEHICLES PASSING CYCLISTS

That the Government of Ontario be requested to review and revise Section 127 of the Highway Traffic Act with a view to making it consistent with the latest edition of The Drivers' Handbook. Problems with sub-sections (2) and (5) were noted by Conference participants. (Note: these sub-sections deal with the allowance of sufficient room for the cyclist by passing motor vehicles and vice versa.)

ORIGINAL AGENDA ITEM:

Question: Should a vehicle overtaking a cyclist on the left have to leave a minimum one metre space between itself and the cyclist?

Responses: Generally positive.

Comment: Should same rule apply, city and country (high and low speed roads)?

DISCUSSION:

At the Traffic Law Workshop G. Pareja said the one metre space had been law in France for 5-10 years but is nearly unenforceable and not generally practiced. He suggested a wording requiring motorists to show "due care and attention." E. Mihalcin argued a one metre space is impractical in downtown Toronto.

W. Silvert strongly opposed the one metre space because of the many variables (size and speed of passing vehicle, road and wind conditions, etc.) and noted that the CCA had been unable to reach consensus on the matter. He stated, though, that the need to leave wide clearance for bicycles is increasingly being recognized, noting an apparent increase in accidents where a cyclist is "brushed" by a passing vehicle. He argued a need to educate drivers to increase their leeway when passing (**). M. Labreque argued for a performance standard requiring vehicles to pass safely, which Silvert said was already in the HTA.

Discussion then focused on the HTA, Sections 127 and 128 (see below). S. Fram proposed deleting 127(2) and 127(5); this would permit cyclists being overtaken to occupy up to but no more than a full lane. B. Timmermans supported this, citing cases where, under the present law, the courts have upheld motorists who ran cyclists off the road.

R. Fruin said deleting 127(2) and (5) would cause a problem on provincial highways, where a car finding it could not leave a full lane berth might have to brake abruptly and dangerously behind a cyclist. Others argued that this was not an issue. Jocelyn Lovell's accident was cited as an example of the danger to cyclists of inadequate passing regulations on two-lane roads. A participant referred to the need for paved shoulders on Ontario highways (as found in many other jurisdictions) (**). This comment received enthusiastic response from many participants.

Participants noted that in the case of multi-lane roads, Section 128 of the HTA governs and already entitles the cyclist being passed to a full lane.

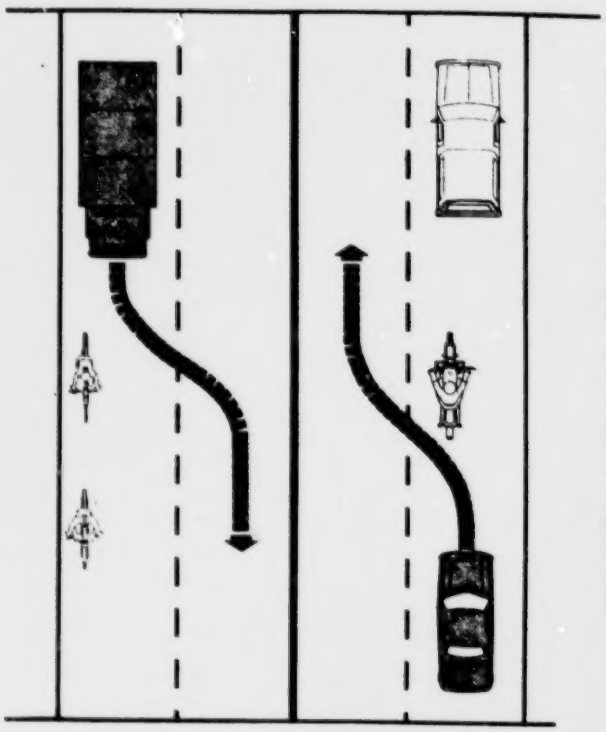
P. Hurley quoted from the latest edition of The Drivers Handbook, which reads as follows:

SHARING THE ROAD WITH SMALLER VEHICLES

Motorcycles, Mopeds and Bicycles

Due to the concern for energy conservation, the number of motorcycles, mopeds and bicycles on our highways is increasing. And, the operators of these smaller vehicles must obey the same rules the drivers of larger vehicles obey. They are also entitled to an equal share of the road.
Still, operators of these vehicles have a tough job. Not only are their vehicles difficult to see, they have little protection in an accident and road conditions can seriously affect their stability.
For instance, they must continuously be on the lookout for potholes, rutted or grooved pavement, railway or streetcar tracks, sewer gratings, manhole covers, loose sand or gravel, wet or slippery surfaces, even dogs. They have a lot to contend with and, while doing this, they may have to swerve or suddenly change direction or lane position.
So, if you intend to pass one of these smaller vehicles, give them their full lane and pass them just as you would any other vehicle.

Source: The Driver's Handbook
(Ontario, 1984 ed.)
emphasis added



SHARING THE ROAD

Resolution 2 was then framed and agreed to by the Traffic Law Workshop.

In the Plenary session this Resolution was adopted without amendment by the Conference.

WORKING PAPERS

Highway Traffic Act, Section 127 and 128

127 (1) Where a person in charge of a vehicle on a highway meets another vehicle, he shall turn out to the right from the centre of the roadway, allowing to the vehicle so met one-half of the roadway free, but this does not apply to a vehicle, road-building machine or apparatus while engaged in the construction, maintenance or marking of a highway.

(2) Where a person in charge of a vehicle on a highway meets a person travelling upon a bicycle or tricycle, the person in charge of the vehicle shall allow the person travelling on the bicycle or tricycle sufficient room on the roadway to pass.

(3) Where a person in charge of a vehicle or on horseback on a highway is overtaken by a vehicle or horseman travelling at a greater speed, the person so overtaken

shall turn out to the right and allow the overtaking vehicle or horseman to pass, but this does not apply to a vehicle, road-building machine or apparatus while engaged in the construction, maintenance or marking of a highway.

(4) Any person so overtaking another vehicle or horseman shall turn out to the left so far as may be necessary to avoid a collision with the vehicle or horseman overtaken, and the person overtaken is not required to leave more than one-half of the roadway free.

(5) Where a person on a bicycle, motor assisted bicycle or a tricycle on a highway is overtaken by a vehicle or horseman travelling at a greater speed, the person so overtaken shall turn out to the right and allow such vehicle or horseman to pass and the person so overtaking a bicycle, motor assisted bicycle or tricycle shall turn out to the left so far as may be necessary to avoid a collision.

(6) Where one vehicle is met or overtaken by another, if by reason of the weight of the load on either of the vehicles so meeting or on the vehicle so overtaken the driver finds it impracticable to turn out, he shall immediately stop, and, if necessary for the safety of the other vehicle and if required so to do, he shall assist the person in charge thereof to pass without damage.

(7) No person in charge of a vehicle shall pass or attempt to pass another vehicle going in the same direction on a highway unless the roadway,

(a) in front of and to the left of the vehicle to be passed is safely free from approaching traffic; and

(b) to the left of the vehicle passing or attempting to pass is safely free from overtaking traffic. R.S.O. 1980, c. 198, s. 127.

128 No vehicle shall be driven or operated to the left of the centre of the roadway designed for one or more lines of traffic in each direction;

(a) when approaching the crest of a grade or upon a curve in the roadway or within 30 metres of a bridge, viaduct or tunnel where the driver's view is obstructed within such distance as to create a hazard in the event another vehicle might approach from the opposite direction; or

(b) when approaching within 30 metres of a level railway crossing.

but this section does not apply to a highway designated for the use of one-way traffic or to a highway divided into clearly marked lanes where there are more such lanes for traffic in one direction than in the other direction. R.S.O. 1980, c. 198, s. 128.

Ontario Cycling Association

3.2 HTA Section 127, subsection 5 should be amended to force vehicles overtaking a bicycle to allow a minimum of 1 metre clearance.

Rationale:

The operation of a two wheeled vehicle is primarily different from the operation of vehicles with three or more wheels in that the operator must balance. This is accomplished on a bicycle with slight steering corrections which in turn require a path which is somewhat wider than the actual bicycle, and wider than the path that would be allowed by a motorist under the present law. In addition, the extreme right sides of most roadways in Ontario are inhospitable to bicycle users because of the hazards presented by such things as poorly designed drain gratings, poor road maintenance, and debris. Cyclists are routinely forced to cycle in this part of the road by overtaking motorists who are abiding by the letter of the law. This practice causes numerous minor bicycle accidents which are rarely reported to police.

Bill Silvert, Canadian Cycling Association

A fixed one-metre clearance is inadequate, and I think that the cycling community would oppose any fixed distance measure. Passing vehicles should generally move over an entire lane, except in rare cases. Most motorists do not understand the needs of a cyclist for room to manoeuvre, and large vehicles generate gusts which make it even more necessary for a cyclist to have adequate space.

RESOLUTION 3: RIDING TO THE RIGHT

3a. That the Government of Ontario be requested to consider adding to the Highway Traffic Act a definition of "as close as practicable to the right-hand side of the road" to take into account the concerns of cyclists. Specific reference was made to cyclists' need to ride in a straight line path clear of such hazards as drain gratings, road debris and parked vehicles. The following legislation from the State of Washington was considered to be a useful example:

"Every person operating a bicycle upon a roadway at a rate of speed less than the normal flow of traffic at the particular time and place shall ride as near to the right side of the right through lane as is safe except as may be appropriate while preparing to make turning movements or making turning movements, or while overtaking and passing another bicycle or vehicle proceeding in the same direction. A person operating a bicycle upon a roadway or highway, other than a limited-access highway, which roadway or highway carries traffic in one direction only and has two or more marked traffic lanes, may ride as near to the left side of the left through lane as is safe. A person operating a bicycle upon a roadway may use the shoulder of the roadway or any specifically designated bicycle lane if such exists.

Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles."

State of Washington, Revised Code of Washington, 46.61/770 (1) & (2).

3b. That municipal governments in Ontario be requested to revise their by-laws to deal with the bicycle in the same way as any other vehicle, as far as the matter of riding to the right is concerned.

ORIGINAL AGENDA ITEM:

Question: Can "as far to the right as practicable" be better defined?

Responses: Generally, yes.

Comment: There are alternatives that are better, and since the phrase is endemic in traffic law, though not used in Ontario, an improved version would be an asset that could become Ontario law. See the Attorney General's submission, for excellent discussion.

DISCUSSION:

In the Traffic Law Workshop W. Silvert noted the need for cyclists to have "wobble space." Other cyclists referred to problems of road debris, catch basins and car doors requiring a path well away from the right-hand edge, and the need to ride a straight line for the cyclist's own visibility and to be predictable for motorists.

Chief Crosbie pointed out that "practicable" means "practical in the circumstances then existing at the time", which would take account of these circumstances. J. Layton and others cited cases of policemen unreasonably reprimanding them for riding too far out. Participants agreed this is an issue where police education is needed.(**)

G. Pareja quoted the new Washington State legal provisions. Participants were enthusiastic about the way in which this wording recognized cyclists' needs (including the need to occupy a full lane when necessary, and the need to make a "vehicle style" left turn - both as now advocated in Effective Cycling training programs). Some participants cautioned that the structure of Ontario law would likely preclude wholesale adoption of such wording.

Resolution 3(a) was accepted as taking these concerns into account. Resolution 3(b) was added after some participants noted that Metro and other municipalities also have by-laws requiring cyclists to ride as close as practicable to the right-hand edge.

At the Plenary session these resolutions were adopted in the form recommended by the Traffic Law Workshop, without further debate.

WORKING PAPERS

Canada Safety Council Survey

3.3 YUKON

Sec. 105(2)(b) Subject to paragraph (a), he shall ride as near as practicable to the right-hand side of the highway.

BRITISH COLUMBIA

Sec. 173(2)(b) subject to clause (a), he shall ride as near as practicable to the right side of the roadway.

ALBERTA

Sec. 123 (2) A person who is operating a bicycle on a highway shall ride as near as practicable to the right-hand curb or edge of the roadway.

MANITOBA

Sec. 136 (2)(b) Subject to clause (a), he shall ride as closely as practicable to the right-hand edge or curb of the roadway, or to any person who may be riding a bicycle on his right side; but persons riding bicycles on a highway shall not ride more than two abreast.

QUEBEC

Sec. 43 (4) The driver of a motorcycle or bicycle on a public highway shall travel as closely as possible to the right-hand side of the highway.

NEW BRUNSWICK

Sec. 179 (1) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

NOVA SCOTIA

Sec. 144 (3) No person shall ride a bicycle on a highway except as near as practicable to the extreme right of the main travelled portion of the highway and no person shall ride a bicycle abreast of or generally parallel to another bicycle in motion on the highway except for the purpose of passing any such other bicycle.

PRINCE EDWARD ISLAND

Sec. 179 (2)(b) shall ride as near as practicable to the right-hand curb or edge of a roadway.

NEWFOUNDLAND

Sec. 149 (2)(b) subject to paragraph (a), shall ride as near as practicable to the right-hand curb or edge of a roadway.

NO LAW IN SASKATCHEWAN OR ONTARIO

Canada Safety Council Proposal

(b) Subject to clause (a) every person shall drive as near as practicable to the right side of the roadway, sidewalk or public foot-path. Where a person is driving on a one-way street, the bicycle may be operated as close as practicable to either the left or right side of the street.

S. Fram, Ministry of the Attorney General

Can "as far to the right as practicable" be more clearly defined?

The only place that the phrase "as near as practicable to the right-hand curb" appears in the current HTA is clause 137(1)(a) which requires vehicles to move to the right to allow emergency vehicles with sirens running to pass. It has not been applied specifically to bicycles.

The deeper issue raised by this question is what should be the respective rights of cyclist and driver when a bicycle is overtaken by a motor vehicle.

The rules regarding passing set out in s.127 of the HTA (quoted and commented upon above) are ambiguous. There are three possibilities for removing the ambiguity: (1) include a section requiring cyclists to always remain on the right; (2) amend s.127 to make it clear that cyclists (and horsemen) are not entitled to one half of the roadway when overtaken but must, unlike other traffic, move as far to the right as practicable; or, (3) make it clear that cyclists have the same right to a full lane as any other vehicle.

If the first or second option were chosen it would be impractical, if not impossible to draft a requirement that was more certain than "as near as practicable to the right-hand curb". A more detailed provision would be cumbersome and could not take full account of all potential obstacles faced by cyclists: drain gratings, doors of parked cars, rough pavement, pedestrians.

The third option would appear to be preferable for the safety of the cyclists. Responsible cyclists will continue to keep to the right for their own safety where that is practicable. However, motorists would be required to move out to the other lane to pass.

Thus cyclists will be given adequate room in high speed traffic or where it is not practical to ride close to the curb.

Such a provision would serve an educative purpose for those drivers who believe it is always the cyclist's responsibility to move for the motor vehicle. On the other hand, a requirement that cyclists move to the right would only encourage impatient motorists who pass too closely.

Perhaps it would be best to explicitly impose reciprocal duties upon motorists and cyclists requiring motorists to avoid interfering with cyclists in any way that could pose a hazard to them, and requiring cyclists to ride in as predictable and safe a manner as possible.

Ontario Cycling Association

"As close as practicable" shall be defined as the distance which will allow a straight line path clear from such hazards as drain gratings, road debris and parked vehicles. This distance would normally be approximately 1 metre from the extreme right of the roadway, or 1 metre from the left-most portion of any parked vehicle.

Rationale:

The present interpretation of this phrase is often 'as close as possible'. Cycling very close to the right side of the roadway requires the cyclist to weave in and out to avoid hazards, a practice which is dangerous and unpredictable. In addition cyclists riding at the extreme right of the roadway are less visible to other vehicle operators, because they are out of that portion of the roadway most easily seen, and because they visibly merge with pedestrians and other objects off of the roadway.

American Automobile Association Model Legislation

11-1205 - RIDING ON ROADWAYS AND BICYCLE PATHS

(a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

(b) Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles. Persons riding two abreast shall not impede the normal and reasonable movement of traffic and, on a laned roadway, shall ride within a single lane.

Bicycle Nova Scotia

152, 154 (1), and 154 (2) are acceptable. However, 154 (3) seems redundant in light of 100 (1) and is often inapproriate unless "practicable" is liberally interpreted. For example, we feel that a cyclist moving with the traffic behind a bus or delivery vehicle

is fully entitled to occupy the left side of the lane so that he can pass if the vehicle in front pulls to the right and stops.

154 (3) raises an important legal point. Many bicycle accidents are caused by cars passing a bicycle and immediately turning right or pulling so far to the right that they drive the cyclist off the road or hit him. For this reason many cyclists occupy the centre of their lane when entering an intersection or on narrow roads with bad shoulders. We feel that the legal burden in case of conflict should be on the passing vehicle to prove that the cyclist was wilfully obstructing traffic, and that the cyclist should not have to justify his position on the road any more than a motorist does.

Bill Silvert, Canadian Cycling Association

"As far to the right as practicable" -- The CCA feels that this provision should be dropped. It is redundant, since in all cases where it applies there is a corresponding provision which applies to motor vehicles as well. It is commonly misunderstood as implying the word "possible", which leads to cyclists trying to make left turns from the right side of the road and other dangerous manoeuvres. The right of cyclists to move to the left for increased visibility, turns, passing, and avoiding merging traffic, is not adequately recognized.

RESOLUTION 4: CYCLING ON SIDEWALKS

That municipal by-laws be amended to prohibit riding of bicycles on the sidewalks by persons 12 years of age and over, except where permitted by signs.

ORIGINAL AGENDA ITEM:

Question: Sidewalk riding: what cyclists, if any, should be allowed to ride on sidewalks? Municipal or provincial decision?

Responses: Equivocal at present. Consensus: small children, "pre-roadworthy" cyclists, "play vehicles" only.

Comments: (i) must decide age versus vehicle type, (ii) ties into minimum age for road users - 11-12 in some places. Intellectual riding decision-making skills don't appear until age 8-10, according to psychologists.

The municipal law in Toronto goes by bicycle wheel size. Unfortunately some fast, adult bicycles have wheels less than the 24-inch maximum size for sidewalk riding. There is a need for a clear statement as to who, if anyone, should ride on sidewalks.

DISCUSSION:

At the Traffic Law Workshop W. Silvert stated that the real issues are (i) speed and (ii) recklessness (not wheel size or rider age); a cyclist riding at pedestrian speed with the flow of pedestrians is not a problem. R. Fruin suggested the law might be amended to require a cyclist to disprove negligence in bike/pedestrian collisions on a sidewalk. Other participants favoured the simple solution of an outright ban on sidewalk cycling.

E. Mihalcin suggested many 8-10 year olds are not safe on the road. T. Dash noted that a child's peripheral vision is only one-third that of an adult's. S. Chamberlain stated that driveways can make the sidewalk less safe for small children than the road.

D. Yakichuk (Peel Regional Police) said the problem on sidewalks is with teenagers, not 8-12 year olds. A police representative said that a ban on sidewalk riding would be fine, since it could not be enforced against under 12s anyway because they cannot be charged with an offence. But M. Castelyn and others objected to teaching children to disobey a law.

T. Dash argued that children under ten are still developing physically and psychologically, so are unsafe cycling on roads or sidewalks. Banning under tens from cycling on arterials was proposed but rejected as impractical.

P. Hurley suggested a province-wide ban on sidewalk cycling, "except where posted by signs" which would give municipalities discretion re bike paths, etc. An MTC representative pointed out that sidwalks are governed by municipal by-laws, not provincial laws. Several participants supported the idea of a model by-law being prepared by the Province, which could then urge municipalities to adopt it. MTC staff suggested working via the Association of Municipalities (AMO) as an alternative. Another proposal was that the Province amend the Municipal Act.

M. Labreque moved "That municipal by-laws be amended to prohibit the riding of bicycles on sidewalks." P. Hurley's amendment "except where permitted by signs" was accepted almost unanimously. The further amendment "by persons 12 years of age and over" carried by a vote of 18:9 (with numerous abstentions).

The selection of age 12 in this motion was agreed to be arbitrary but sensible because under 12s cannot be charged in law.

At the Enforcement Workshop this matter was also discussed. There was some confusion over whether it was properly an enforcement issue and, if so, what recommendations should be made which were pertinent to enforcement. After much discussion, the Workshop recommended a resolution detailing who should be allowed to ride on sidewalks and when. At this point, D. Beames entered to report that the Traffic Law Workshop had adopted essentially the same proposal. It was decided to drop the resolution from the Enforcement Workshop's list of recommendations on the understanding that it would be presented by the Traffic Law Workshop.

In discussion at the Enforcement Workshop, it was noted that it cannot be assumed that riding on sidewalks is safer for children than riding on residential roads. Sidewalks are narrow and pedestrians move across them in all directions. Pedestrians may suddenly appear from behind obstructions or may abruptly change direction. Motorists backing out of their driveways may have to pull well out onto the sidewalk before they can see approaching traffic. Children on bicycles, unlike pedestrians, move too quickly to be able to stop in time or to be noticed in time by the motorist. Wheelchair ramps enable children to suddenly and quickly enter intersections from unanticipated angles.

However, it was also noted that since children under 12 cannot be charged for any crime, it is useless to prohibit them from using sidewalks. The point was made that the law should serve an educative function, and that prohibiting children under 12 from using the sidewalks could at least serve to inform parents that sidewalk riding ought not to be encouraged.

At the Plenary session, G. Morizet-McDonald and others again raised the issue of banning all cylists from sidewalks. The Conference agreed that the ongoing Working Committee on Cycling and the Law should be asked to further examine the matter of children under 12 on sidewalks.

Deletion of "except where permitted by signs" was proposed but quickly rejected. The issue of elderly persons riding adult tricycles on sidewalks was raised. R. Fruin suggested that signs in the vicinity of hospitals where these are used could resolve the matter.

The Conference therefore adopted Resolution 4 as recommended by the Traffic Law Workshop.

WORKING PAPERS

Canada Safety Council Survey

3.4 YUKON

> Sec. 105 (2) A person who is operating a bicycle shall comply with the following provisions, namely,

Sec. 105 (a) he shall not ride on a sidewalk.

BRITISH COLUMBIA

Sec. 173 (2) A person who is operating a cycle shall comply with the following provisions, namely;

Sec. 173 (a) He shall not ride on a sidewalk.

ALBERTA

Sec. 14 (1) With respect to highways under its direction, control and management, the council of a municipality -----, may make by-laws.

Sec. 14 (14) controlling or preventing the riding of bicycles on any sidewalk.

MANITOBA

Sec. 136 (2) A person who is operating a bicycle shall comply with the following provisions, namely;

(a) He shall not ride on a sidewalk.

NOVA SCOTIA

Sec. 144 (2) No person shall ride a bicycle, tricycle, or similar machine on a sidewalk; provided, nothing in this Section shall be deemed or construed to prevent the use of velocipedes or similar machines by children on a sidewalk in a public square, park, city or town.

PRINCE EDWARD ISLAND

Sec. 179 (2) A person who is riding a bicycle,

(a) shall not ride on a sidewalk.

NO LAW IN SASKATCHEWAN, ONTARIO, QUEBEC AND NEW BRUNSWICK

Canada Safety Council Proposal

(3) A person who is operating a bicycle shall comply with the following provisions, namely:

(a) No person shall drive a bicycle on a sidewalk unless allowed by local ordinance, nor any play vehicle on a highway.

S. Fram, Ministry of the Attorney General

What bicycles, if any, should be allowed to ride on the sidewalks?

Paragraph 412 of section 208 of the Municipal Act allows a municipality to pass a by-law:

42. For prohibiting carriages, wagons, bicycles, sleighs and other vehicles and conveyances of every description, and whatever the motor power or any particular kind or class of such vehicles or conveyances being upon or being used, drawn, hauled or propelled along or upon any sidewalk, pathway or footpath, used by or set apart for the use of pedestrians and forming part of any highway or bridge, boulevard or other means of public communication, or being in or upon any highway, boulevard, park, park-lot, garden or other place set apart for ornamental or embellishment or for public recreation.

Comment

Various municipalities have prohibited bicycles and tricycles with a wheel size limitation from using the sidewalks. Some exemptions from the general by-law have been provided in the City of Toronto, e.g. under the bridge at the intersection of Dupont and Davenport.

It would appear that many municipalities have sidewalks adjacent to very heavily travelled highways where the sidewalks are not heavily used by pedestrians. On some highways, e.g. almost all overpasses of the 401 in Metro Toronto, no provision has been made for the safe passage of bicycles. It would also appear that there is general violation by the public of the rule against riding on the sidewalks. The fine for riding on the sidewalk is less than the fine for riding the wrong way on a one-way street.

There is considerable danger for pedestrians where bicyclists use sidewalks without great caution. There is no provision in the legislation similar to that contained in subsection 167(1) of the Highway Traffic Act. The effect of 167(1) is that, where a pedestrian or bicyclist or other non-motor vehicle user of a highway is injured in a collision with a motor vehicle, the onus of proving that loss or damage did not arise from the negligence of the driver of the motor vehicle is upon the driver of the motor vehicle. It would be possible to create a similar provision with respect to collisions between bicycles and pedestrians occurring on sidewalks. The provision would cast the onus of disproving negligence on the rider of a bicycle. However, this would raise further issues as to the requirement on a bicycle rider to identify him or herself and, also the issue of liability insurance for bicycle riders.

It would seem unreasonable to distinguish between the bicycles that are allowed to ride on the sidewalk and those that are not on the basis of wheel size. Some children's bicycles have a wheel size in excess of 40 or 50 centimetres in diameter, while some high-speed bicycles have a wheel size of less than 45 centimetres in diameter. There would appear to be no distinction between the way a responsible adult rides on a sidewalk and the way a responsible child rides on a sidewalk. Danger is created to pedestrians by both irresponsible adults and irresponsible children.

American Automobile Association Model Legislation

11-1103 - Driving Upon Sidewalk

No person shall drive any vehicle other than by human power upon a sidewalk or sidewalk area except upon a permanent or duly authorized temporary driveway.

11-1209 - Bicycles and Human-Powered Vehicles on Sidewalks

(a) A person propelling a bicycle upon and along a sidewalk, or across a roadway upon and along a crosswalk, shall yield the right of way to any pedestrian and shall give audible signal before overtaking and passing such pedestrian.

(b) A person shall not ride a bicycle upon and along a sidewalk, or across a roadway upon and along a crosswalk, where such use of bicycles is prohibited by official traffic-control devices.

(c) A person propelling a vehicle by human power upon and along a sidewalk, or across a roadway upon and along a crosswalk, shall have all the rights and duties applicable to a pedestrian under the same circumstances.

Bill Silvert, Canadian Cycling Association

Sidewalk bikes - No categorization based on measurements is possible, given rapid changes in bicycle technology. Also, a small child racing down the sidewalk is more of a problem than a slowly moving senior citizen. Police discretion is called for -- an adult cyclist who travels a short distance on an empty sidewalk to skirt a traffic jam should not be charged. If enforcement is reasonable, then banning the riding of bicycles on the sidewalk is acceptable.

Peter Kirkby, Cyclist

2.2 Prohibited Riding

The Act should ensure that the large bicycles are ridden on the highway rather than the sidewalk (By-law 214-17-1).

Recommendation:

> The Highway Traffic Act should be amended so that no person shall ride a bicycle with a wheel or wheels more than 61.0 centimetres in diameter upon a sidewalk on any highway.

These two recommendations establish a code for the majority of older cyclists, throughout the Province, that they are obliged to use the highway, and abide by the Highway Traffic Act. It is very important to establish good cycling practices by the older cyclist which the younger cyclist should see and follow.

Mrs. Morizet-McDonald, Pedestrian Representative

Who should be allowed to ride on sidewalks?

NOBODY. Except children under seven years of age (date of birth) when playing in front of their home and never on main streets, and not accompanied by cycling relatives or friends over seven years old.

Except on tricycles, children should not be allowed on paths (in parks) reserved for pedestrians. Why not start learning rules at an early age?

Children from seven years and over are a real menace on Yonge Street north and south of Street. Clair Ave. and on Lawton Boulevard as well as on Yonge Street north of Eglinton ... Also on St. Clair Avenue, between Avenue Road and Yonge Street, for instance ... and probably on many other sidewalks with heavy pedestrian traffic...

Furthermore, it is not unusual in the above areas to see a parent (or even two) riding on the sidewalk with two or three children following on bicycles of various sizes ... often with a baby in a baby-seat.. In such cases, pedestrians have no other alternative than to walk on the road ... where, according to the Traffic Act, they do not belong.

RESOLUTION 5: RIGHT TURN SIGNALS

That the Government of Ontario be requested to amend the Highway Traffic Act to permit right arm extended as a legal right-turn signal for bicycles in addition to the currently permitted signal.

ORIGINAL AGENDA ITEM:

Question: Should right-arm, right-turn signal be made legal?

Responses: Mostly positive.

Comment: (i) does not rule out conventional right-turn signal; (ii) makes life easier for cyclists.

DISCUSSION:

In the Traffic Law Workshop this change was strongly advocated by W. Silvert. Cyclists present were almost unanimous that the right arm extended was an easier, safer and clearer signal to make, and especially useful when changing traffic lanes to the right. Many said they already use it despite illegality. No one present objected to legalizing right arm extended provided the currently established (bent left arm) signal remained legal too, mainly because of the "unlearning" problem.

W. Silvert's proposal that the proposed change apply to all "thin" vehicles was rejected as beyond the scope of the Conference. An MTC representative mentioned that legalizing right arm extended for motor cyclists had previously been examined and rejected.

The Plenary session adopted the Workshop's recommendation without further debate.

WORKING PAPERS

Canada Safety Council Survey

3.5 MANITOBA

Sec. 136 (2)(g) He shall give the signals required under subsection (1) of section 117.

(Sec. 117 (1) When a driver of a left-hand drive vehicle, or the operator of a bicycle, gives a signal by hand and arm he shall do so from the left side, and shall signify (a) a left turn, by extending his left hand and arm horizontally from the vehicle; (b) a right turn, by extending his left hand and arm out and upward from the vehicle; and (c) a stop or decrease in speed, by extending his left hand and arm out and downward from the vehicle.)

NO LAW IN YUKON, BRITISH COLUMBIA, ALBERTA, SASKATCHEWAN, ONTARIO, QUEBEC, NEW BRUNSWICK, NOVA SCOTIA, PRINCE EDWARD ISLAND, AND NEWFOUNDLAND.

Canada Safety Council Proposal

(i) When the operator of a bicycle gives a signal by hand and arm he shall do so from the left side, and shall signify a left turn by extending his left hand and arm horizontally; a right turn by extending his left hand and arm out and upward; and a stop or decrease in speed by extending his left hand and arm out and downward.

Steve Fram, Ministry of the Attorney General

Should the right-turn signal made with the extended right arm be made legal?

Section 122(4) of the HTA provides:

When the signal is given by means of the hand and arm, the driver or operator shall indicate his intention to turn,

(a) to the left, by extending the hand and arm horizontally and beyond the left side of the vehicle; or

(b) to the right, by extending the hand and arm upward and beyond the left side of the vehicle.

Comment

The meaning of an extended right arm is clear; it cannot easily be misinterpreted. Since the purpose of the requirement to signal is to ensure other traffic is aware of the cyclist's intentions, an extended right arm would be to meet that purpose.

The only objection to a right-handed signal is that it may not be visibly obvious. Drivers are accustomed to look for left-handed signals, and, since cyclists will mostly be to the right of other traffic, their right hands may be obscured.

Where the right-handed signal would be clearly visible (for example, when the cyclist is on the left side of a one-way street) there is no reason why it should not be acceptable.

Ontario Cycling Association Position

Section 122, subsection 4 should be amended to recognize a straight right arm projected from the shoulder towards the right as a valid right-turn signal. All presently used signals should remain completely acceptable.

Rationale:

This type of right-turn signal is easier for the cyclist and more visible to the motorist, particularly when the cyclist is changing lanes from the left to the right.

Bicycle Nova Scota

(8)(b) specifies that right-turn signals shall be made with the left arm. The correct signal is almost impossible to make from a bent over cycling position, and it is seldom understood. We recommend that an extended right arm be accepted as a legal right-turn

signal for bicyclists and motorcyclists. (This has already been done in parts of the United States).

Bill Silvert, Canadian Cycling Association

Right-turn signals -- The CCA recommends that the use of the extended right-arm turn signal be legalized. The left-arm signal is commonly not understood, and it cannot be made properly by a cyclist riding dropped bars. It is also less visible to following cyclists or to vehicles approaching on the right (as when a cyclist is trying to move to the right across merging traffic in a rotary).

Peter Kirkby, Cyclist

2.5 How to Signal Manually (Section 122 (4b))

The right turn should ideally be signalled by a cyclist by extending the right hand and arm horizontally. The procedure in Section 122 (4b) of extending the left hand and arm is particularly dangerous in certain cases. A cyclist having turned left onto a multi-lane highway is not in the curb lane (Section 121(5)). The cyclist is obliged to move across to the right side of the multi-lane highway (Section 126). This requires the cyclist to pivot round to verify that there is no traffic in the right lanes. The current section (1224b)) requires pivoting about the right hand, signalling with the left hand. This limits the cyclist. By signalling with the right hand, the cyclist pivots on the left hand. This provides the cyclist with a greater ability to verify that there is no traffic. It is, however, recognized that the practice of using the left hand may be well established by some cyclists.

Recommendation:

5. The Highway Traffic Act should be amended such that the rider of a bicycle shall indicate his intention to turn to the right either by extending the right hand and arm horizontally, or by extending the left hand and arm upward.

RESOLUTION 6: RIDING ON CROSSWALKS

That the Government of Ontario and municipalities throughout the Province be urged to amend appropriate legislation to prohibit the riding of bicycles on pedestrian crosswalks and cross-overs.

ORIGIN:

This resolution and Resolution 7 were proposed as logical extensions of the discussion surrounding sidewalk bicycle use (see Resolution 4).

DISCUSSION:

At the Traffic Law Workshop there was widespread agreement that cyclists riding on crosswalks and at cross-overs were hazardous to pedestrians. Some participants stressed that the wording of any law needed to make it clear that cyclists could ride over crosswalks when proceeding along a street, but not along crosswalks. A wording to exempt cyclists walking with their bicycles was dropped in favour of Resolution 7 (see below).

Some participants pointed out that it was important to continue to permit cyclists to make left turns "pedestrian style" - that is, by proceeding across an intersection in the right lane, waiting at the corner, then joining the right lane of the transverse street. This is because many cyclists lack the skill or confidence to make "vehicle-style" left turns, and because in some circumstances (e.g. some fast-moving multi-lane arterials, or intersections laced with streetcar tracks) these are too hazardous. The Workshop agreed that the proposed resolution would not prohibit such a manoeuvre, properly made.

At the final Plenary session this Resolution was adopted without amendment.

RESOLUTION 7: DISMOUNTED CYCLIST A PEDESTRIAN

That the Government of Ontario and municipalities throughout the Province be urged to amend appropriate legislation to ensure that a dismounted cyclist walking with his or her vehicle is considered to be a pedestrian, except where inappropriate.

ORIGIN:

See Resolution 6. This resolution arose from the need to ensure that a dismounted cyclist could legally push his or her vehicle on a sidewalk or crosswalk in the event legislation is enacted along the lines proposed in Resolution 4 and Resolution 6.

DISCUSSION:

Debate centred around the point made by M. Labreque, that a cyclist dismounted to walk up a hill on a highway, major street or in any comparable situation not be required to cross the road twice in order to walk on the left, as pedestrians are legally required to do. The words "except where inappropriate" were added to address this concern. R. Fruin pointed out that similar circumstances exist in the law as it is applied (practically) to pedestrians, and that the police use their judgement in such circumstances.

RESOLUTION 8: USE OF BICYCLE PATHS

The existence of an adjacent bicycle path is no justification for the exclusion of bicycles from a road. This does not preclude specific exclusion of bicycles and slow-moving vehicles from high speed highways where satisfactory alternate routes exist.

ORIGINAL AGENDA ITEM:

Question: Should bicycle riders have to use bicycle paths where they are adjacent to roads?

Responses: Equivocal.

Comment: Accident analysis to date indicates cyclists much safer on roads.

DISCUSSION:

In the Traffic Law Workshop T. Dash argued that the danger of on-street bike accidents justified requiring use of bicycle paths where they exist. This was hotly disputed by numerous cyclists. Bicycle paths were characterized as generally poorly designed, inadequately constructed and maintained, and far more accident-prone than many roads. It was pointed out that poorly designed bike paths are virtually unusable by, for example, loaded touring bikes. The legal ambiguity surrounding bicycle paths and their use was also cited as a serious problem (see Chapter 7). Many of these same criticisms were applied to bicycle lanes.

G. Pareja made the telling argument that mandatory use of bicycle paths tends to diminish the incentive for a high quality facility. Most cyclists present concurred that if a municipality provides a safe, high-quality, direct bicycle path, and maintains it properly, then virtually all cyclists will use it rather than remain on the adjacent road. M. Labreque pointed out that in Europe use of bicycle paths is almost never mandatory, but the good ones are heavily used.

W. Silvert proposed the wording as adopted. His proposal to include the word "other" ahead of "slow-moving vehicles" was rejected on the basis that many cyclists are not slow-moving.

At the Plenary session this resolution was adopted without further debate.

WORKING PAPERS

Canada Safety Council Survey

3.8 YUKON

Sec. 105 (3) No person who is operating a bicycle shall ride it upon a highway if there is a usable path intended for the use of bicycles adjacent to the highway.

BRITISH COLUMBIA

Sec. 173 (3) No person who is operating a cycle shall ride it upon a roadway if there is a usable path intended for the use of cycles adjacent to the roadway.

MANITOBA

Sec. 136 (3) No person riding a bicycle shall ride it upon a roadway if there is, adjacent to the roadway, a usable path intended for the use of bicycles.

NEW BRUNSWICK

Sec. 179 (3) Wherever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway. 1955, c.13, s.161; 1960, c.53, s.30.

Canada Safety Council Proposal

OBSTRUCTING TRAFFIC -- USE OF EXISTING BIKE PATHS

(13) No person shall park a bicycle on a highway.

(14) No person who is operating a bicycle shall drive it upon a roadway if there is a usable path intended for the use of bicycles adjacent to the roadway.

American Automobile Association Model Legislation

(c) Wherever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

RESOLUTION 9: USE OF ARTERIAL ROADS

That cyclists should be considered legitimate users of arterial roads.

ORIGIN:

This Resolution arose out of discussion on Resolution 8.

DISCUSSION:

At the Traffic Law Workshop J. Layton pointed out that Metropolitan Toronto has a policy of discouraging bicycle use on arterial roads. B. Timmermans referred to a similar issue in Ottawa. There was general agreement that such a policy is directly contrary to the principles adopted at the Conference, to Resolution 8, and to the interests of cyclists and use of the bicycle as a legitimate part of the transportation system.

Cyclists present concurred that it was this type of policy, which is also used in some jurisdictions in the USA, which has given rise to widespread opposition to bicycle paths among "serious" cyclists (as opposed to recreational cyclists, who generally support them).

A police representative stated that there are some circumstances, such as limited access highways (expressways), where bicycles should be prohibited. A cyclist responded with the concern that often when bicycles were banned no satisfactory alternative route is provided. I. Brett (MTC) stated that it is Ministry policy to always provide a satisfactory alternative in such circumstances.

The Workshop agreed that adopting Resolution 9 was important in order to send a clear and unequivocal message to Metropolitan Toronto and other government bodies.

At the Plenary session, this resolution was adopted without further debate.

WORKING PAPERS

Canada Safety Council Survey

3.9 ONTARIO

> Sec. 128 (1) The Lieutenant Governor in Council may make regulations prohibiting or regulating the use of any highway or part thereof by pedestrians or animals or any classes of vehicles.
>
> (2) The Council of a municipality may by by-law prohibit pedestrians or the use of motor assisted bicycles, bicycles, wheelchairs or animals on any highway or portion of a highway under its jurisdiction on which the maximum speed limit is 50 miles per hour or more. R.S.O. 1970, c.202, s.128(2); 1974, c.123, s.31 (2); 1975, c.78, s.9.

NOTE: In Quebec, it is illegal for children under 12 to ride on roads with a speed limit greater than 50 Km/h.

RESOLUTION 10: NEED FOR BELL OR HORN

That the Government of Ontario be requested to amend the Highway Traffic Act, Section 57(5) to provide that every cyclist shall be capable of giving an audible signal which shall be sounded whenever it is reasonably necessary to notify pedestrians or others of the vehicle's approach.

ORIGINAL AGENDA ITEM:

Question: Should the requirement of sounding devices on bicycles be dropped?

Responses: Equivocal.

Comment: Issue (i) pedestrians hear them, but can drivers? (ii) on many bicycles one must choose between control and a sound warning in potential danger situations.

DISCUSSION:

At the Traffic Law Workshop, G. Pareja suggested that requiring an audible signal was better. W. Silvert agreed, and proposed recommending to the Ontario government that Section 57(5) of the Highway Traffic Act be amended to read:

"Every vehicle driver shall be capable of giving an audible signal which shall be sounded whenever it is reasonably necessary to notify pedestrians or others of the vehicle's approach."

Silvert argued that his voice was a clearer, better, signal than any bell or horn, at least as loud, and in an emergency could be used when both hands were engaged in braking. Most cyclists present appeared to concur with this view, and agreed that the term "audible signal" took into account the case of someone without a loud enough voice.

It was argued that ideally each class of vehicle should have a distinctive kind of warning signal. Others said this is impractical. Chief Crosbie pointed out that with modern relatively sound-proof cars where the radio is on and the windows closed due to air conditioning, no signal of any kind given by a cyclist would be audible - bell, horn or voice. Others agreed, and suggested the main purpose of any audible signal was to alert other cyclists and pedestrians. P. Chertkow said she felt it was important to keep the requirement for a bell. However, the Workshop as a whole disagreed, and recommended adopting Silvert's resolution, modified to refer only to bicyclists.

At the Plenary session, it was decided to generalize the wording by changing "read" to "provide that" and removing the quotation marks. The resolution as amended was then adopted.

WORKING PAPERS

Canada Safety Council Survey

3.10 NEW BRUNSWICK

Sec. 181 (2) No person shall operate a bicycle unless it is equipped with a bell or other device capable of giving a signal audible for a distance of at least one hundred feet, except that a bicycle shall not be equipped with nor shall any person use upon a bicycle any siren or whistle.

NOVA SCOTIA

Sec. 155 (4) Every bicycle shall be equipped with a bell or horn in good working order, and it shall be an offence for any person to install or use upon a bicycle any siren or whistle.

PRINCE EDWARD ISLAND

Sec. 106 (2) No person shall operate a bicycle unless it is equipped iwth a bell or other device capable of giving a signal audible for a distance of at least one hundred feet, but a bicycle shall not be equipped with nor shall any person use upon a bicycle any siren or whistle. 1964, c. 14, s.102; 1971, c.17, s.22.

NEWFOUNDLAND

Sec. 13.1 A motor vehicle and bicycle shall be equipped with an efficient horn, which the drive shall sound whenever it is reasonably necessary to notify pedestrians or others of the approach of the vehicle, but bells, gong, or sirens shall not be used except on an emergency vehicle, or on a motor vehicle of the Emergency Measures Organization.

Sec. 13.2 The driver of a motor vehicle or a bicycle shall not --

(a) sound or permit to be sounded any horn or other signalling device so as to make any unreasonable noise.

NO LAW IN YUKON, BRITISH COLUMBIA, ALBERTA, SASKATCHEWAN, ONTARIO AND QUEBEC

Canada Safety Council Proposal

(a) Bell or Horn

Every bicycle shall be equipped with a bell or horn in good working order, to be sounded whenever it is reasonably necessary to notify pedestrians or others of its approach, and it shall be an offence for any person to install or use upon a bicycle any siren or whistle.

American Automobile Association Model Legislation

12-707 - SIRENS AND WHISTLES PROHIBITED

A bicycle shall not be equipped with, nor shall any person use upon a bicycle, any siren or whistle.

S. Fram, Ministry of the Attorney General

Should the requirement of sounding devices on bicycles be dropped?

Subsection 57(5) of the HTA provides:

Every motor vehicle, motor-assisted bicycle, bicycle and tricycle shall be equipped with an alarm bell, gong or horn, which shall be kept in good working order and sounded whenever it is reasonably necessary to notify pedestrians or others of its approach.

Comment

An alarm bell is of little or no value in alerting motor vehicles of the presence of a bicycle. Notice to pedestrians can as easily be given through the use of the voice, as through another form of alarm. Therefore, this provision, as it applies to bicycles, would appear unnecessary.

Ontario Cycling Association Position

4. Bells and Buzzers

Bells and buzzers shall not be required. (Section 57, subsection 5)

Rationale:

Bells and buzzers are most often ineffectual because of traffic noise and well insulated motor vehicles. Since a bell or buzzer would only be useful in emergency situations, operating the noise device would remove one of the cyclist's hands from the handlebars exactly when it (the hand) is most needed. A shout from the cyclist would be just as effective, much safer, and more natural.

Bicycle Nova Scotia

165 (4) Most bells and horns are useless - at 50 km/hr., they cannot be reached in time, and other vehicles cannot hear them. They are only useful on sidewalk bikes. Bicycling builds strong lungs, and the standard bicycle warning device is the human voice.

Bill Silvert, Canadian Cycling Association

Sounding devices -- A requirements that all vehicle operators be capable of making an adequate warning sound is sufficient, as in most cases a cyclist's voice is the most effective signal. Horns and whistles are not loud enough, and they are not accessible when a cyclist is using handbrakes. Only voiceless cyclists need mechanical signals, although bells are desirable on bike paths.

Mrs. Morizet-McDonald, Pedestrian Representative

Bells and other sounding devices are worthwhile when passing other cyclists (and pedestrians - when riding on sidewalks where they do not belong anyway).

RESOLUTION 11: USE OF HELMETS

That the Government of Ontario be requested to conduct studies, in conjunction with appropriate authorities at other levels of government, on the efficacy of cycling helmets for achieving improved cyclist safety. It is not accepted that mandatory helmets should be instituted at this time.

ORIGINAL AGENDA ITEM:

Question: Should helmets be made mandatory?

Responses: Some yes, some no - agreement on research need.

Comments: Could this be sent to Product Standards Workshop with long-term endorsement (review in 2-5 years) a possibility?

DISCUSSION:

The Traffic Law Workshop was informed that the Product Standards Workshop had discussed the matter of helmets and was calling for a CSA standard, but had also resolved that more research was needed on the types of injuries sustained and the degree of protection offered by helmets.

T. Dash cited statistics to show that head injuries account for three-quarters of all bicycle accident deaths, and that 52-64% of serious injuries at the Hospital for Sick Children are head injuries. He proposed a resolution that helmet use be made mandatory.

G. Pareja said he used a helmet but was not ready to legislate helmet use due to a lack of standards. P. Chertkow agreed with the need for more research and standards, and stressed the need for more education.

Most of those present concurred that a move in the direction of eventually requiring helmets was useful, but not at this time. S. Fram proposed a resolution "that helmets should not at present be made mandatory, but further research on the use and efficiency of helmets should be carried out". This was modified when several participants said it was important to direct it specifically to the Ontario government. The resolution as amended was adopted by the Workshop.

T. Dash proposed that a Sub-committee of the City Cycling Committee be struck to examine the durable efficacy (value) of required helmet legislation for children under 12. He pointed to hockey as an example where helmet use started with small children and had become widespread.

Others cited controversy about the dangers of helmet use for small children. P. Hurley referred to a dramatic rise in neck injuries as a result of helmet use, especially among children.

K. Sutherland referred to the high cost of helmets, saying that mandatory helmet use would reduce the social accessibility of bicycle use.

The Workshop rejected T. Dash's proposed resolution.

At the Plenary session Resolution 11 was adopted without further amendment.

WORKING PAPERS

S. Fram, Ministry of the Attorney General

Should helmets be mandatory?

There would appear to be no demonstrable evidence that the use of helmets by bicyclists leads to fewer accidents. The evidence seems to be that cyclists wearing helmets would be more severely injured than if they were not wearing helmets. There is a significant question of whether bicyclists wearing helmets are thereby given a false sense of security which leads to a more aggressive style of cycling. There seems to be growing evidence in connection with the use of protective equipment in hockey to the effect that greater protection may lead to a sense of invulnerability which gives rise to risks leading to serious injury.

Ontario Cycling Association

5. Helmets

At the present time, no standards exist for bicycle helmets. It is essential that such standards be established. It is also essential that consumer pressure be exerted to reduce the prices of adequately protective helmets. The use of helmets in all types of cycling activity is highly recommended.

Rationale:

The primary purpose of a helmet is to prevent head injury during a fall. Cyclists, however, require a helmet to be light weight and cool, or else it cannot be worn. At the present time there are many different helmet designs on the market, each of which has a different combination of comfort and safety In addition, cost factors have caused compromises to both. Standards and reasonable cost are both necesary before helmet legislation should be considered.

Bill Silvert, Canada Cycling Association

Mandatory helmets --- The CCA has a policy of encouraging helmet use, but does not formally recommend their use. Their value is still somewhat controversial in the cycling community, and there has not been adequate research for the development of legal standards.

Mrs. Morizet-McDonald, Pedestrian Representative

Helmets are very annoying. I do not know if the number of grave accidents justifies such cumbersome things.

Various other matters on the agenda of the Traffic Law Workshop were deferred, or discussed with a decision to pass no resolution. These are referred to in Chapter 6.

4. RESOLUTIONS : ENFORCEMENT

RESOLUTION 12: BICYCLE REGISTRATION

That it is undesirable to implement a bicycle registration program.

ORIGINAL AGENDA ITEM:

Issue: Licensing/registration of bicycles and/or cyclist.

Responses: Equivocal.

Comment: Decide what and why:

- register bicycles only - theft, identification
- license riders only - identification and skill level
- register/license rider and bicycle - theft, skills, identification

Perhaps each of the above strategies could be discussed.

DISCUSSION:

At the Enforcement Workshop it was pointed out that were bicycles to carry large enough numbers, they could be identified by pedestrians in case of a hit-and-run accident. However, it was also noted that, given that bicycles are commonly circulated among friends and siblings, and given especially the high rate of bicycle theft and the difficulty of locating a bicycle which someone chooses to conceal, positive identification could not be obtained. It was also noted that the police must apprehend motor vehicle operators before charges can be laid. Police representatives themselves affirmed that the only violations which they could enforce on the basis of bicycle registration would be parking offences, not moving violations. The police also noted that registration programs have not proven to be helpful in locating stolen bicycles. A number of people noted that the licensing of bicycles would be very expensive and that the expense involved is not offset by any benefits.

D. McCluskey: Licensing of the bicycle legally cannot be used for enforcement against moving violations, the real problem. The experience of other municipalities has been that licensing has turned out to be undesirable and has had negative results.

All but the pedestrian representative agreed to recommend adoption of the above resolution.

At the Plenary session debate on this resolution focussed around the need for alternative ways of reducing bicycle theft if bike licensing is not implemented. It was agreed to ask the Working Committee on Cycling and the Law to look at measures to reduce bicycle theft. The resolution was then adopted without amendment.

WORKING PAPERS: APPEAR FOLLOWING THE DISCUSSION ON LICENSING OF CYCLISTS.

RESOLUTIONS 13-16: LICENSING OF CYCLISTS

That the Government of Ontario be requested to amend the Highway Traffic Act to provide that where an officer believes an offence has been committed by a cyclist, the cyclist shall identify himself or herself by supplying his or her correct name and address and that failure to do so could lead to arrest.

Resolution 14

That given the implementation of Resolution 13, licensing of cyclists is not required for enforcement purposes.

Resolution 15

That although licensing could ensure mandatory bicycle education, it would be more desirable to investigate some alternative means of providing for the education of cyclists.

Resolution 16

That the possibility of licensing on a province-wide or broader basis for purposes other than enforcement should be examined further.

ORIGINAL AGENDA ITEM:

Question: Do police need the power to request the name and address of cyclist traffic law violators? of all Highway Traffic Act violators?

Responses: Generally positive.

Comment: Awkward wording in the Highway Traffic Act leads to enforcement ambiguities. A clear statement of what the mandate of police is for dealing with cyclist traffic law violators can be proposed. Power to confiscate bicycle if no proof of identity forthcoming?

(See also original agenda item under Resolution 12, above.)

DISCUSSION:

At the Enforcement Workshop police representatives made the point that while licencing can be enforced, it is not necessary. Their concern was to be granted the power under the HTA to require cyclists whom they reasonably believe have violated the HTA, to identify themselves. They do not see licenses as being necessary as long as people are required to provide some identification. They do not expect any special piece of paper -- just information that can be verified. Some people asked what would happen if cyclists mis-identify themselves. The police said that such cyclists could be charged with obstructing justice the next time they were apprehended.

Some participants maintained that there can be no hope of getting either licensing or a mandatory requirement to provide identification. They maintained that before any such action could be successful it would have to be demonstrated that bicyclists are a problem, and they insisted that there is no evidence that bicyclists are indeed a problem.

Bicyclists do not smash into other vehicles or other property and cause extensive damage. People do not tend to use bicycles for the commission of violent crimes.

It was noted that the costs of administering a licencing program would be prohibitive.

It was also noted that children under 12 years of age are immune from prosecution whether they have licences or not.

The following resolutions were recommended for adoption by all but the pedestrian representative:

(A) "The Ministry of Transportation and Communications should take all steps necessary to have The Highway Traffic Act amended to provide that where a police officer believes a cyclist has committed an offense the officer may require the cyclist to produce correct identification and that failure to do so could lead to arrest or seizure of the bicycle."

(B) "Though licensing could ensure mandatory bicycle education, it would be more desirable for the province and its municipalities to investigate some alternative means of providing for the education of cyclists."

(C) "That a Working Committee be formed to discuss the issues and implications of licensing cyclists. Discussion will include costs and cost effectiveness, age limits, insurance and commercial couriers. The group will be convened by the Toronto City Cycling Committee."

Details of Enforcement Workshop Discussion:

D. Crosbie: The only way to get any enforcement is to require that cyclists must identify themselves. You will never get a licence from them. The cost is just too great. Compulsory education is one thing. Requiring identification is one thing. But licences are another thing entirely. You can't expect licences. All the police basically need now is a means to require identification.

D. McCluskey: Do you imagine that the requirement to provide identification would be used in place of licensing?

D. Crosbie: Yes.

L. Reilly: What sort of identification would be required?

D. Crosbie: Anything that can be verified.

H. Pym: It would be easy to get the (Highway Traffic) Act amended to provide that when an officer reasonably feels that the Act has been violated he or she may require the person to produce some sort of identification.

N. Chyz: It doesn't seem reasonable that someone could be hauled off to jail for some trivial offense, merely because they are unable to identify themselves.

Some discussion of whether impounding the bicycle could be used in conjunction with or in place of the power to arrest people who cannot identify themselves ensues. It is pointed

out that officers on motorcycles or on foot cannot impound bicycles, that impounding a vehicle entails taking on responsibility for it, and that there may be problems with space allocations for impounded bicycles. The police expressed their unwillingness to take on the responsibility.

H. Pym: All they have to do is give us their name and address and we'll verify it.

D. Crosbie: It would solve a majority of problems in smaller places. Even if someone gave us a false name and address, we would get them later on.

H. Pym: They could be charged with obstructing justice.

N. Wasylyk: You are all wasting your time. You'll never get anywhere at MTC with these proposals. Bicyclists are not a problem and unless someone can prove that they are MTC won't do anything.

P. Chertkow: We are somewhat more open to the idea than that.

D. McCluskey: Is licensing bicycles necessary and is it enforceable?

D. Crosbie: It is enforceable, but I don't think it is necessary.

N. Wasylyk: We've wasted a lot of time coming up with proposals on this identification issue and have never gotten anywhere with the legal people.

D. McCluskey: What about licensing, then?

N. Wasylyk: Don't ask us to do this. We've tried for years to get licensing for snowmobiles and finally had to give up.

D. McCluskey: Is there a problem with bicyclists?

N. Wasylyk: I've heard people say that there is. But I have yet to see any concrete evidence to show that bicyclists are a problem. Bicylists aren't going around killing people or robbing banks, or wrecking other automobiles and property. If someone could demonstrate that bicylists were a problem, we might have been able to get somewhere with this issue in the past, but unless you can give strong evidence to the Ministry you won't get anywhere.

There was some discussion of whether there should be an age limit for bicyclists to use city streets.

I. McGregor and D. Beames pointed out that the evidence indicates that adults are having the greatest number of accidents and that the poor skills of adult cyclists are the main problem.

T. Dash questioned the validity of statistics based on accident reports to the police. He noted that hospital statistics may indicate that children have the majority of bicycle accidents.

L. Falkenstein: I doubt that T. Dash's statistics prove the point he wants to make: we need to know where children have the accidents the hospitals report. If children get hit

while trying to perform complex manoeuvres in traffic, that is one thing. But, if children are getting hit because they ride on sidewalks and are run into by cars backing out of driveways, or because they leave the sidewalk and enter intersections from an unexpected angle, then the statistics hardly prove that we need to prevent children from riding on the road.

H. Pym: The problem of children entering intersections from the sidewalk has been greatly amplified by the construction of wheelchair facilities: cyclists used to have to slow down before negotiating the curb; now they blast up and down the ramps.

J. Pryer: Can't we just ask that the bicyclist be required to identify himself?

D. Crosbie: I don't need to produce a piece of paper to identify myself.

The police appear to be satisfied as long as they may require possible offenders to correctly identify themselves verbally.

D. Crosbie: It's a hell of a lot more than we've got now.

L. Reilly to police: Do you think violations of the law by bicyclists are a problem?

Police representatives: 6 - "Yes"; 1 - "No".

K. Sutherland: Is the consensus that in order for the police to enforce the law there must be a mandatory requirement for bicyclists to identify themselves? Also, is the consensus that licensing would be too expensive, unwieldy and unpopular and that some other way should be found?

T. Dash: I'm still wondering about age limits.

H. Tiessen: So we want to ensure that there be a requirement for identification, but that there not be a licensing program?

General murmurs of agreement.

Some discussion ensued as to whether or not a mandatory licensing program for bicyclists could be used to ensure that cyclists take driver education programs. It was pointed out that whereas children can be reached through the schools, adult cyclists have no incentive to learn proper cycling technique. Some noted that the rules of the road for cyclists are the same as the rules of the road for motorists and that therefore anyone who has learned how to drive a car ought already to know the essentials of how to operate a bicycle. However, some felt that driver education programs for motorists leave out too many esoteric bits of bicycle lore. It was noted that if the police have the power to enforce the rules of the road against cyclists, then enforcing adult education programs by licensing may not be crucial -- especially given the costs and heavy administrative bureaucracy required by a licensing and testing program. Adults would be given sufficient incentive to learn correct riding practice by the knowledge that they would be charged for violations of The Highway Traffic Act. This point appeared to sway most of the Workshop.

H. Tiessen: Well, there is interest in pursuing the possibility of getting amendments to the HTA to require that bicyclists identify themselves. And I think the consensus is that

we should pursue some other means than licensing of educating and regulating bicycles. Is there general agreement about this?

General murmurs of agreement.

Mrs. Morizet-McDonald: I want to register my disagreement with this conclusion. I think there should be licensing and liability insurance attached.

Discussion of the licensing issue ended before any substantive consideration of licensing for commercial couriers or of liability insurance for cyclists could be undertaken. Some members of the Workshop still felt strongly about the issue of age limits for cyclists using City streets. It was decided to recommend setting up a working committee to investigate whether licensing was necessary for these purposes or whether a more effective way could be found. There was general agreement to setting up such a committee.

At the final Plenary session the matter of licensing received extensive further debate.

A cyclist complained that licensing within a single municipality would put it out of bounds to bicycle tourists. M. Labreque argued that bicycle licensing was good because it provided recognition of the bicycle as a vehicle. He noted that many European countries have licensing. Another cyclist said it would help to be able to respond to motorists who say "I pay for a licence to use the road - you don't." Others dismissed this as irrelevant.

On the matter of identification, it was stressed that what was envisioned was not merely a police right to request identification, but a police power to require that identification be supplied. Again it was noted that no particular piece of paper was imagined to be required for proper identification.

After further discussion, a broad consensus emerged that licensing of cyclists:

(a) is not essential for education purposes;

(b) is not required for enforcement provided police are given the power to obtain identification;

(c) is not sensible at a scale less than province-wide.

Given this third conclusion, the Conference agreed that referral to the City Cycling Committee was inappropriate. It also concurred with the chairman that in view of Metro Council's current interest in the possibility of licensing, a strong stand against licensing at the municipal level should be reflected in the resolutions.

Accordingly, the Plenary session voted by a large majority:

- to adopt Recommendation (A) of the Enforcement Workshop, with the amendment that it be (more properly) addressed to the Government of Ontario, and that the words "or seizure of the bicycle" be deleted. (This last change on a relatively close vote, mainly on the grounds that depriving a cyclist of his or her vehicle would be an unduly harsh punishment in the case of a comparatively minor offence, and that there could be extremely wide disparity in the value of bicycles seized, from a few dollars to over $1,000) (Resolution 13).

- to adopt a new resolution stating explicitly that licensing of cyclists is not required for enforcement purposes (Resolution 14).

- to adopt Recommendation (B) of the Enforcement Workshop (Resolution 15).

- to not adopt Recommendation (C) of the Enforcement Workshop, but to leave open the door for possible future licensing by adopting new Resolution 16.

Mrs. Morizet-McDonald requested that her position against the foregoing resolutions be noted.

WORKING PAPERS

RESOLUTION 13: CYCLIST GIVING NAME

S. Fram, Ministry of the Attorney General

Should police be given the power to request the name and address of all vehicle operators who break traffic laws?

The question is misleading. Police, like all other citizens, have the right to request anybody's name and address. The issue is whether failure to provide the correct name and address should give rise to a right to make an arrest and the power to hold the person until proof of identity is established.

Section 19 of the Highway Traffic Act provides:

1. Every driver of a motor vehicle shall carry his licence with him at all times while he is in charge of a motor vehicle and shall surrender the licence for reasonable inspection upon the demand of a constable or officer appointed for carrying out the provisions of this Act.

2. Every person who is unable or refuses to surrender his licence in accordance with subsection (1) shall, when requested by a constable, give reasonable identification of himself and, for the purpose of this subsection, the correct name and address of such person shall be deemed to be reasonable identification.

Section 190(2) provides:

> Every constable, who, on reasonable and probable grounds, believes that a contravention of any of the provisions of ... subsection 19(2) ... has been committed, whether it has been committed or not, and who, on reasonable and probable grounds, believes that any person has committed such contravention, may arrest such person without warrant whether such person is guilty or not.

Comment

The central issue is the protection of civil liberties versus enforcement of the rules of the road. The problem is not whether a policeman may request the name and address of a cyclist who is breaking a traffic law, but whether a person who has not provided his name

and address, on the request of a police officer, can be arrested to enforce the production of proof of his name and address. Those who oppose conferring the right of arrest are fearful that the power may be abused and lead to harassment. Those in favour of providing a power of arrest, in these circumstances, believe that unless the power is conferred the police will not have sufficient means for enforcing the rules of the road. Those who oppose conferring the power of arrest would point out that if a bicyclist can be forced to identify himself then, surely, a pedestrian, who is jay-walking, should be forced to identify himself. There are other issues related to identity which also surface in an examination of this problem. What proof of identity should a police officer consider satisfactory? Would the oral statement of a person, unsupported by documentary evidence, be sufficient? If the police officer doubts such oral information, and the cyclist does not have appropriate documentary evidence, this could lead to arrest.

On the other hand, should police officers, who witness a cyclist committing an offence, be required to go to extraordinary lengths in order to establish his or her identity, if the person refuses to identify him or herself? Why bother having "rules of the road" if they can only be enforced against those holding a motor vehicle licence?

Peter Kirkby, Cyclist

2.4 Examination of Vehicle (Section 65)

Report on Conviction to Registrar (Section 184)

When Owner may Appeal before Justice of the Peace (Section 187)

Power of Police Officer to Stop a Vehicle (Section 189a)

In these sections the driver of a "motor vehicle" should be changed to the driver of a "vehicle" to include the rider of a bicycle.

Recommendation:

4. The Highway Traffic Act should be amended such that "motor vehicle" be changed in sections (65), (184), (187), and (189a) to "vehicle", with other appropriate changes to include the rider of a bicycle.

RESOLUTIONS 12-16: REGISTRATION AND LICENSING

Canada Safety Council Survey

4.16 ALBERTA

Sec. 14 (1) With respect to highways under its direction, control and management, the council of a municipality may make by-laws, not inconsistent with this Act and on matters for which no provision is made in this Act, for the regulation and control of vehicle, animal and pedestrian traffic and, without restricting the generality of the foregoing, may make by-laws.

Sec. 14 (15) providing for the licensing of owners of bicycles, prescribing regulations with respect thereto and controlling and regulating the operation and parking of bicycles on highways and other public places.

S. Fram, Ministry of the Attorney General

Licensing

There are two issues raised by the topic of licensing: vehicle licensing and rider licensing.

Vehicle licences could really serve only one useful purpose: protection against theft. (The police are no longer able to issue a ticket for traffic violations against the licence number of the vehicle; they must stop the driver.) However, unless the licence number is engraved on the bicycle it would be easily removed and of little value either as a deterrent or as a means of identifying stolen bicycles. Vehicle licensing would involve excess costs for minimal effectiveness.

Requiring riders who wish to use the roads to be licensed could be very costly, especially if this would involve some sort of testing program. Rider licensing could serve two purposes: monitoring riders' skills and serving as identification for traffic offenders. A motor vehicle in unskilled hands is a lethal weapon. Requiring motorists to be licensed is necessary for public protection. An unskilled cyclist is primarily of danger to himself. As for the identification of offenders, the requirement of a licence would not in itself authorize police to demand its production. Subsection 19(1) of the HTA provides:

> Every driver of a motor vehicle or street car ... shall surrender the licence for reasonable inspection upon the demand of a constable ...

This would have to be amended to include cyclists. It would be less costly to simply require cyclists to identify themselves. Licensing cyclists would just not be cost effective.

London Bicycle Safety Committee

Licensing:

It is recommended that a mandatory provincial bicycle licensing program be established, and that the licence information be printed on reflective material.

A licensing program would render the bicycle a legal vehicle with the driver responsible for his/her actions under the Highway Traffic Act.

The identification of bicycles would vastly improve with a provincial licensing system.

Law enforcement officers would be better served with the establishment of a licensing system.

American Automobile Association Model Legislation

12-2 - License Required

No person who resides within this city shall ride or propel a bicycle on any street or upon any public path set aside for the exclusive use of bicycles unless such bicycle has been licensed and a license plate is attached thereto as provided herein.

12-3 License Application

Application for a bicycle license and license plate shall be made upon a form provided by the city and shall be made to the (chief of police). An annual license fee of ---- shall be paid to the city before each license or renewal thereof is granted.

12-4 Issuance of License

(a) The Chief of police upon receiving proper application therefore is authorized to issue a bicycle license which shall be effective until (the next succeeding first day of July).

(b) The Chief of police shall not issue a license for any bicycle when he knows or has reasonable grounds to believe that the applicant is not the owner of or entitled to the possession of such bicycle.

(c) The Chief of police shall keep a record of the number of each license, the date issued, the name and address of the person to whom issued, and the number on the frame of the bicycle for which issued, and a record of all bicycle license fees collected by him.

12-5 Attachment of License Plate

(a) The Chief of police upon issuing a bicycle license shall also issue a license plate bearing the license number assigned to the bicycle, the name of the city, and (the calendar year for which issued) (the expiration date thereof).

(b) The Chief of police shall cause such license plate to be firmly attached to the rear mudguard or frame of the bicycle for which issued in such position as to be plainly visible from the rear.

(c) No person shall remove a license plate from a bicycle during the period for which issued except upon a transfer of ownership or in the event the bicycle is dismantled and no longer operated upon any street in this city.

12-6 Inspection of Bicycles

The Chief of police, or an officer assigned such responsibility, shall inspect each bicycle before licensing the same and shall refuse a license for any bicycle which he determines is in unsafe mechanical condition.

12-7 Renewal of License

Upon the expiration of any bicycle license the same may be renewed upon application and payment of the same fee as upon an original application.

Gilles Villeneuve Foundation

Safety

At present when one purchases a bicycle there is no licensing requirement for the bike. No one asks the potential cyclist if he has any basic road safety knowledge. No one asks

if he is familiar with the safe operation of the bicycle. No one asks if the cyclist has any health condition which might interfere with safety. If an individual is required by law to wear glasses while driving a car, why should that person be exempt from wearing glasses while riding a bicycle? Lack of bicycle licences permits a dangerous double standard.

Recommendation:

1. Purchasers of bicycles be required to pass a written test on bicycle safety and sign an information waiver before being issued a novice permit. After completion of an advanced cycling safety course a full licence would be issued.

2. The licensed cyclist be required to display a licence on the bicycle. This will assist police in enforcement of traffic law and aid in retrieval of stolen bicycles.

3. A minimum age of 16 years be recommended for cyclists using major traffic routes.

4. Legislate mechanical safety standards for bicycles, and enforce these standards upon issuance of the licence.

Mrs. Morizet-McDonald, Pedestrian Representative

Licensing

(or rather "Provincial registration for bicycles")

. An addition (or amendment) to the Ontario Highway Traffic Act should make Registration of Bicycles mandatory.

. Registration for obtaining of a Bicycle Permit indicating name and address of owner and provincial immatriculation of the vehicle

and of a licence plate to be securely fixed to the back of the seat of the bicycle.

. "The Registrar of Motor Vehicles" (Highway Traffic Act. Part 1 Sec. 3(1) to become "The Registrar of Vehicles" or "The Registrar of Motor vehicles and Bicycles".

A Deputy Minister could be specifically assigned to "Bicycle Registration". Art.3:(3).

1. WHAT PURPOSE SHOULD IT SERVE?

. With Provincial Registration, bicycles would be officially recognized as "vehicles".

. As "vehicles", they would have to follow traffic rules and the police to enforce them.

. Registration would increase the sense of responsibility of cyclists as riders of vehicles - not of "toys".

. Permits and licence plates would make police work easier : immediate identification of rider.

. Licence plates would allow pedestrians (or car drivers) to identify more easily bicycles violating traffic laws and municipal by-laws.*

. When accidents happened, injured persons - or car-owners whose vehicles have been damaged - and witnesses, would be able to take the plate number of the bicycle - as often cyclists do not remain at the scene of an accident.

. In case of theft, bicycles may be easier to recover.

. When riding on sidewalk if pedestrians dare to tell cyclists that they are violating a By-law, they get very belligerent. Pedestrians could report them to the police if quick identification by licence plate could be done. (See Globe and Mail, Aug. 14, 1984 "Police seek cyclist in beating death." Pedestrian walking with wife and children struck by a BMX style bicycle ... died the day after of a traumatic hemorrhage." Several letters to confirm cyclists' aggressiveness when riding on sidewalks or pedestrian crosswalks.

2. IS IT COST EFFECTIVE?

. Registration of bicycles should be made along the lines of the registration of Motor Vehicles and under the same authority and administration - and field offices.

. Registration should take place once a year, at date of birthday of owner or when a new bicycle is purchased.

. Administrative officers and personnel are already trained, more employees would have to be hired, but this would provide badly needed employment.

. A registration fee of $30 per year (approximately the cost of a monthly transit pass in Toronto) for any owner of a bicycle above the age of 15 (date of birth) and of $10 for any rider above seven years of age. That is a registration fee for anyone not allowed to ride a bicycle on a sidewalk. (As proposed further.*)

* By-law 522-78 Act. 17 (1) should be changed to go by age and not by the size of the bicycle wheels as an increasing number of "folding" or "touring" bicycles will have wheels of less than 61 cm of diameter, in the near future.

. It is estimated that there are 500,000 bicycles in Metropolitan Toronto including 180,000 in the City of Toronto, and 2,800,000 in Ontario. Revenue from registration - and fines against traffic violations by cyclists - should cover cost of registration and administration as well extra help required by police to enforce By-law 522-78, Act. 17 and By-law 319-19 (parks) in summer.

. Revenue from registration of bicycles could also help municipalities to improve roadways and provide greater safety to cyclists.

3. DOES IT HAVE INSURANCE IMPLICATIONS?

The answer is YES. DEFINITELY.

. A Bicycle Permit would not be delivered without proof of insurance coverage for third party liability.

. Liability coverage is part of most (if not all?) homeowners, tenants and condominium unit owners package policies.

Although this seems to be very little known by the public ... and even badly injured pedestrians. (See letter #4)

. For cyclists not having this type of coverage:

(a) a new insurance, designed for bicycle owners or riders and covering third party liability only would have to be considered by the Insurance Industry.*

(The Insurance Bureau of Canada should be contacted for preliminary study).

Such an insurance exists at very low cost in Holland and possibly still in France.

(b) Consideration would have to be given to the creation of a Provincial fund similar to the "Motor vehicle accident claims fund."

. Insurance would contribute:

(a) to increase cyclist's sense of responsibility. Once again a bicycle is a vehicle - and not a toy.

(b) to offer a recourse to injured persons or to owners of damaged motor vehicles.

(c) to impress on cyclists the fact that like any other driver or rider of a vehicle, they must remain at the scene of an accident. (See letter #3)

* An insurance of the type "Automobile" would, according to some insurance representative, be very costly as it would have to cover injury to the cyclist as well as to third party. The Insurance Bureau of Canada should be consulted about that.

RESOLUTION 17: ENFORCEMENT PRIORITIES RE MOTORISTS

It is recognized that there are particular motorist actions which are particularly dangerous to the operators of small vehicles such as bicycles, and the continued enforcement of laws prohibiting these actions is supported. Specifically, the following problems were identified: failure to yield right-of-way; opening car doors into traffic; unsafe passing; parking offences; failure to set turn signals in advance of starting turns, especially right turns; and driving with "lack of consideration."

ORIGINAL AGENDA ITEM:

Question: What traffic laws should be most strictly enforced against motor vehicle drivers interacting with cyclists?

Comment: Failure to yield right-of-way violations, opening doors into traffic, unsafe passing, parking offences, "lack of consideration laws" were all mentioned as targets.

The present problem is that cyclists feel police are not sensitized enough to motorist actions that endanger cyclists.

DISCUSSION:

The Enforcement Workshop advocated this resolution for the sake of stressing that cyclists are not the only ones responsible for cyclist/motorist conflicts. It was noted that all the motorists' actions listed are actions for which motorists are currently being charged by the police and the recommendation was understood by all as a recommendation to continue such enforcement rather than to undertake it.

At the Plenary session, this resolution was amended by adding the words "failure to set turn signals in advance of starting turns, especially right turns", and unanimously approved as amended.

WORKING PAPERS: APPEAR FOLLOWING RESOLUTION 18.

RESOLUTION 18: ENFORCEMENT PRIORITIES RE CYCLISTS

That in enforcement of traffic laws against cyclists, priority should be given to those actions which cause the most accidents in each community.

WORKING PAPERS

S. Fram, Ministry of the Attorney General

4.18 What traffic laws should be most strictly enforced against motor vehicle operators interacting with cyclists?

The following laws should be strictly enforced against motorists: (1) careless driving, Section 111 of the HTA; (2) careless opening of vehicle doors, Section 143 reads as follows:

No person shall:

(a) open the door of a motor vehicle on a highway without first taking due precautions to ensure that his act will not interfere with the movement of or endanger any other person or vehicle; or

(b) leave a door of a motor vehicle on a highway open on the side of the vehicle available to moving traffic for a period of time longer than is necessary to load or unload passengers;

and (3) parking offences which are, especially on busy streets, a hazard to cyclists of which most motorists are unaware.

Ontario Cycling Association

There are particular practices of motorists that endanger cyclists. The OCA would like to see better enforcement of the following laws, as they relate to motorist error.

1. failure to yield (section 115)
2. opening doors into traffic (section 143)
3. following too close (section 136)
4. unsafe passing (section 127, subsection 7)

Mrs. Morizet-McDonald, Pedestrian Representative

What traffic laws should be most strictly enforced against motor vehicle operators interacting with cyclists?

- Passing too close to cyclists.
- Not checking if cyclist behind, when making a right hand turn - and not signalling.
- Not checking if cyclist behind when pulling to the curb - and not signalling.

- Not checking if cyclist coming when pulling away from curb.
- Not checking if cyclist coming, when opening car door.

S. Fram, Ministry of the Attorney General

What traffic laws should be most strictly enforced against cyclists?

Three offences strike me as requiring strict enforcement against cyclists: (1) failure to provide the proper lighting required by subsection 44(17) of the HTA after dark, because it greatly decreases motorists' ability to react to the presence of the bicycle and may involve innocent motorists in accidents they could have avoided; (2) disobeying traffic lights subsection 124(5), because nothing so arouses the contempt of motorists for cyclists so that other, careful cyclists may later be at risk because of the attitudes of those motorists; (3) careless driving, section 111.

Ontario Cycling Association

Enforcing the present Highway Traffic Act

A cyclist using the roadway is expected to abide by the rules and regulations set by the Province of Ontario. The OCA recognises this, and would further request that the Law Enforcement Agencies put special emphasis on enforcing the sections listed below. These particular laws relate directly to the cyclist errors identified in studies of cyclist actions which caused the greatest number of accidents.

1. wrong way travel on one way streets (section 132)
2. illegal stops

2,3 (a) at signal lights - cite on each occasion (section 124)

(b) signs - use discretion and warnings (section 116)

3. improper turns (section 121)
4. use of lights at night (section 44)
5. stopping for streetcars (section 144)

Bill Silvert, Canadian Cycling Association

ENFORCEMENT

The present state of enforcement with respect to bicycle law is so poor that I will only address the question of which laws should receive enforcement priority. The answer to this should be based on research on accident causes and will change as we learn more about these causes. Wrong-way riding, lack of lights and reflectors at night, and running lights and stop signs at speed -- I am not including rolling stops -- are clearly dangerous. Programs for young offenders are called for. Few policemen want to arrest a six-year-old for riding on the wrong side of the road, but they should not ignore blatant

violations by children either. Some safety literature (e.g., Sprocketman folder) that they can give to violators would be a first stop.

Mrs. Morizet-McDonald, Pedestrian Representative

What traffic laws should be most strictly enforced against cyclists?

1. City of Toronto by-law 522-78 Art. 17 amended to take into consideration the age of the rider and not the size of the wheels of the bicycle as stated previously and to be extended to pedestrian crosswalks - at green lights or other crossings marked as such.

   This bylaw to be extended to the whole province (Amendment to Traffic Act)

2. By-law (Toronto) 319-69 bicycle riding on pedestrian paths in parks

3. Not stopping at "Stop" signs ... and at red lights

4. Art. 44 (18) of the Traffic Act, concerning proper lights on bicycles

5. Cycling the wrong way on a one-way street

6. Wearing headphone devices other than hearing aids (this should be banned).

RESOLUTIONS 17 and 18

Bicycle Nova Scotia

BE IT RESOLVED THAT Bicycle Nova Scotia urges all law enforcement agencies to enforce all laws affecting the safety of bicyclists, either through legal sanctions or by warnings. This is particularly important for young riders who are unlikely to be familiar with the Motor Vehicle Code and may mistake neglect of an obvious offence for official sanction of an unsafe practice. In particular, we feel that police should make it a practice to stop all cyclists who ride on the wrong side of the road or who run stop lights, since these are especially dangerous practices. The seriousness of the feeling of the membership on this matter is indicated by the fact that we are fully aware that increased enforcement is likely to lead to arrest of some of our own members -- we make no pretence of being any more moral or law-abiding than any other citizens, and many of us disagree with some of the bicycle provisions of the Motor Vehicle Code. However, we feel that gross violations of some of the most important safety-related laws pose a serious problem that must be stopped.

The most serious and probably most common violation is riding on the wrong side of the road. Many parents misguidedly encourage their children to ride facing traffic, but this puts them in a place where other road users do not expect vehicles, and they are very likely to be hit by turning motor vehicles or to collide with pedestrians and other cyclists. According to a U.S. Department of Transportation Study, riding against traffic is involved in almost a third of all collisions between bicycles and motor vehicles. Safety experts have identified education about this single factor coupled with back-up enforcement as the most cost-effective first step in reducing bicycle accidents.

Intersections are high-risk areas, and many accidents are caused by motorists cutting off or colliding with bicycles during turning manoeuvres. This seems to be in part a problem

of perception, since motorists consistently seem to under-estimate the speed of bicycles. From the statistics, it appears that collisions due to a vehicle illegally entering an intersection are equally caused by bicyclists and motorists, although the vast majority of cyclists involved are young children. Certainly it is reasonable to expect the policy to stop anyone who blatantly violates a sign or other intersection control; it is especially important to recognize that children, whose lack of familiarity with the operation of a motor vehicle makes them especially susceptible to accidents, must not be ignored when they violate the law.

The third major category of accident involves motorists overtaking cyclists; of these 80% occur at night, even though few cyclists are out at this time. About 90% of the bicycles involved do not have lights, and a third of the motorists have been drinking, according to the U.S. study. There is no question that inadequate bicycle visibility at night is a major contributing factor to accidents of this type. Unfortunately, present legal requirements are a poor guide, and most cyclists seem to feel that reflective material and moving lights are much more effective than most fixed lights and standard reflectors. An observant law officer in a motor vehicle is probably the best judge of whether the cyclist has adequate visibility, and a few seconds to deliver some stern words may do a great deal to save irresponsible cyclists from less observant motorists.

In short, we urge you to increase enforcement of all laws related to bicycle safety, and in particular to act against riding on the wrong side of the road, running lights and stop signs, and riding after dark with inadequate illumination. We emphasize the importance of applying the law to all cyclists, including children; of course we recognize that enforcement does not necessarily mean arrest, and especially where young children are concerned a friendly, but stern, warning may be much more effective than a citation.

Peter Kirkby, Cyclist

4. ENFORCEMENT OF THE ACT

Enforcement of the Act upon cyclists, from personal observation, is minimal. The infractions by cyclists are seriously high and lead to a very vocal response by motor vehicle drivers. Indeed, the majority of motor vehicle drivers appear to express little patience with cyclists. This places an unnecessary burden on the responsible cyclist as the element of trust is eroded.

Recommendation 4 provides for a police officer to stop a bicycle and to proceed with steps leading to enforcement. To ensure the effectiveness of enforcement, the local police authority might focus in the press on particular offences a week or so before making charges.

Recommendation:

11. That steps should be taken by the Chiefs of Police of Ontario to increase the enforcement of those sections of the act where a cylist is violating the Act and where other users violate the rights of a cyclist.

RESOLUTION 19: PUBLICIZING ENFORCEMENT PRIORITIES

That police forces throughout Ontario be encouraged to identify and publicize the enforcement priorities in Resolution 18 in each community.

ORIGINAL AGENDA ITEM:

Question: What traffic laws should be most strictly enforced against cyclists?

Comment: There are various possibilities:

- all, equally;
- priority to those causing most accidents and disruption of traffic pattern; and
- selective target law enforcement with general enforcement back-up (Ottawa STEP program).

DISCUSSION:

At the Enforcement Workshop, discussion on Resolution 18 began by noting that this is a practice generally adopted by police when enforcing the law. The Workshop was advised that different kinds of cyclist actions may cause more accidents in different communities. There was some discussion of whether police should be directed to enforce the laws which are publicly perceived to need enforcement, or whether police should be directed not to enforce the laws which are the easiest to enforce. It was noted that those actions which are publicly perceived to cause the most accidents are not necessarily those actions which do in fact cause the most accidents. Police noted that cyclist-caused pedestrian fatalities, for instance, are extremely low in proportion to motorist-caused pedestrian fatalities. It was decided that, in general, it was most important for the police to enforce the law on the basis of real dangers and that it would be inappropriate to direct the police to respond to public pressures based on merely perceived dangers. It was also decided not to include any reference to not enforcing laws on the basis of the ease with which violators may be apprehended. The police noted that they attempt to enforce the law in that way which maximizes public safety.

With respect to Resolution 19, it was noted that this is an important part of current police enforcement techniques.

The Enforcement Workshop was unanimous in its decision to recommend adoption of Resolutions 18 and 19.

At the final Plenary session, Resolution 18 and Resolution 19 were approved without amendment.

RESOLUTION 20: PENALTIES

That with respect to fines, all cyclist violations under the Highway Traffic Act should be assessed the same minimum penalty as is assessed for motor vehicles.

ORIGINAL AGENDA ITEM:

Question: Penalties: how severe should they be? What is fair?

Comment: Many suggestions were made. There were opinions that some fines are too small and some too big. The issue of points transfer, it was noted, is unconstitutional, since it is discriminatory punishment applying only to vehicle drivers.

Provincial versus municipal penalities and youth versus adult penalties also need discussion. The potential role of bicycle impoundment can be discussed.

A consistent, province-wide penalty system with proper police enforcement powers under the Highway Traffic Act is one potential ideal.

DISCUSSION:

Members of the Enforcement Workshop generally felt that cyclists should be assessed stiffer penalties for failing to have sufficient night time illumination. There was no discussion of whether "sufficient night time illumination" should be interpreted as currently provided in the HTA. Some were concerned that police officers might be reluctant to charge younger cyclists if they were to be assessed a high fine. It was pointed out that lower fines were normally assessed in juvenile courts.

At the final Plenary session, Resolution 20 was briefly but hotly debated. A number of participants expressed concern about the size of the penalties involved, particularly when applied to non-adult cyclists. However, a police representative pointed out that there would be no penalties for persons under 12 years old, who cannot be charged, and that penalties for 12-18 year olds would be set by the Young Offenders' Court.

Other speakers pointed out that not to pass this Resolution would be inconsistent with the Conference's already approved Principles. Resolution 20 was then adopted, as recommended by the Enforcement Workshop.

WORKING PAPERS

S. Fram, Ministry of the Attorney General

4.20 Penalties

The HTA does not distinguish between cyclists and other vehicles regarding penalties for breach of the rules of the road. This would appear to be appropriate. Since the rules apply equally to cyclists and motorists, the penalties should be applied equally. There is no reason why a cyclist should receive a lower, or a higher, penalty.

However, applying the point system against the rider's motor vehicle license for cycling offences is inappropriate. The skills required for driving and cycling are different. Bad cyclists do not necessarily make bad drivers. Driving offences risk the lives of others in a way that cycling offences do not. Removal of the repeat offender's license is not only a punishment; it is a means of public protection. There is no need to withdraw the driving privileges of people who do not break traffic rules while driving a motor vehicle because they are willing to risk their own safety on a bicycle.

London Bicycle Safety Committee

PENALTIES:

The penalties for traffic violations should be parallel to those for other vehicular traffic.

It has been suggested that an offender be required to attend a bicycle safety educational seminar in lieu of the fine payment.

It is recognized that the current point system for motor vehicles is not applicable to all ages of cyclists, therefore requires further evaluation.

Consideration should be given to guidelines regulating the age and/or skill level of the cyclist.

Mrs. Morizet-McDonald, Pedestrian Representative

It seems to me that according to the Ontario Highway Traffic Act, penalties will have to be enacted by the Lieutenant-Governor in Council ... like the fixing of bicycle registration fees.

1. HOW SEVERE SHOULD THEY BE?

Two main factors to be considered:

(a) the vehicle safety rules (To protect cyclists)

(b) Cyclists must respect traffic laws and municipal by-laws when riding a bicycle.

I therefore shall consider only "B":

- A bicycle is a vehicle and as such should .. abide by traffic laws and municipal by-laws.

- Same penalties should be given to cyclists for violating traffic laws as are given to motor vehicle drivers.

- Enforcement against cyclists violating the law should not be left to the discretion of individual officers, as it appears to be often the case.

"Officer should be not more lenient on cyclist"

(Globe and Mail, August 4, 1984, page 12, declaration made by a spokesman for Metro police, Inspector Ronald Dick of the Metropolitan Toronto Police, according to John Haslett Cuff, the writer of the article "Make Way for the Pedal Pushers).

. In my opinion riding on a bicycle on a sidewalk amongst pedestrians (or at a crosswalk) in violation of By-law 522-78 Art. 17 (1) or on a pedestrian path clearly marked as such in a park (By-law 319-69) is willingly and deliberately endangering the life of pedestrians or risking to injure them ... a violation similar to passing on a yellow line on the roadway, for a car ... Yet, for such a violation the fine is, at present, only $8 ... but $100 for a car.

. Art 44 (18) of the Traffic Act, regulating lights on bicycle sets fine for violation at only $5 ... this in 1983.

2. WHAT IS FAIR?

. A Bicycle is a vehicle. For not abiding by the Ontario Traffic Act on the roadway, cyclists should be imposed the same fines as other vehicles such as motor vehicles. (Not stopping at stop signs, going through red lights, etc. ..)

. Fine for not observing City of Toronto By-law 522-78 Art. 17 (1),Bicycling on sidewalks, which is at present $8, should be brought to $30 or even $50. Fine of the same amount for not observing By-law 319-69 (Parks).

  - Police officers have repeatedly told me that people do not observe the law because the fine is ridiculously small.

. Fine for not abiding by Traffic Act Art. 44 (17), lights on bicycles, should be brought to $30 as it is often an excuse for cyclists to ride on sidewalks, particularly at night in the city.

4.21 Traffic violations such as bicycle riding on the sidewalks or pedestrian crosswalks are of rather seasonal nature. Students should be hired in summer to assist police and to give tickets to offenders. Students should also be posted in parks to prosecute violators of City of Toronto By-law 319-69, concerning cyclists riding "pedestrian paths" neatly marked as such.

RESOLUTION 21: ENFORCEMENT ON BIKE PATHS

That there is a variety of recreational bicycle path enforcment techniques which should be investigated, besides looking to the police, such as bike patrols as used in Minnesota, or the use of by-law enforcement officers. It is recommended that municipalities investigate these alternatives and move towards implementing some of them.

ORIGINAL AGENDA ITEM:

Question: Enforcement on bicycle paths: what and how?

Comment: Heavily-used bicycle paths are a relatively new phenomenon. What laws should apply there? Who should enforce them? How? Are insurance implications different on bicycle paths than on streets because the same laws do not apply?

DISCUSSION:

Members of the Enforcement Workshop were uncertain who could be detailed to undertake enforcement duties on bicycle paths. The police were less than anxious to undertake the duty. Various possibilities were suggested, including park personnel, municipal by-law officers, and teenagers enrolled in educational programs. None of these alternatives was mentioned in the originally recommended resolution because Workshop members were reluctant to imply that any one avenue should definitely be pursued. Their concern was merely that the matter be further investigated, not that any particular solution should be selected.

At the Plenary session, the Conference decided to amend the original resolution by adding the reference to bike patrols or enforcement officers. It was felt that without these examples, it would be hard for anyone reading the resolution to understand what was meant.

The resolution as amended was then adopted.

5. RESOLUTIONS: PRODUCT SAFETY

Because the Canadian Standards Association is the instrument by which most product safety standards are developed in Canada, the Product Safety Workshop began with an address by the representative of the CSA, Dr. Jim McCarthy. He outlined the function of the CSA in a manner similar to the following working paper.

WORKING PAPER: DR. J. MCCARTHY

The Standards Development Process

Before specifically addressing the issue of safety standards for cycling, a few basic facts about the development of standards must be understood. Standards are developed in response to a clearly identified and broadly based need demonstrated by various groups who would be ultimately affected by the proposed document. It should be considered as one solution to a problem.

Before CSA embarks on the development of a standard, this need must be properly determined and the necessary resources for its development must be identified. With this information CSA staff can assemble a committee of technical expertise, drawn from four basic interest groups - manufacturers, users, regulatory authorities and general interest groups (academics, consumers, etc.), for the purpose of developing the requirements deemed necessary to properly address the "problem."

This process typically takes two to four years and considerable expense. The result is a voluntary document which addresses the key areas of concern with requirements arrived at through consensus. This consensus principle is in fact the foundation of standards development.

The ultimate use of the standard then varies quite widely. As a voluntary document, its use is dependent on the requirements and support of affected organizations. Trade associations can encourage their members to meet product standards. Purchasers, or purchasing groups, can require that products meet relevant standards as a condition of purchase. Consumers can demand that consumer products meet standards. Regulatory authorities can make standards a mandatory requirement for the sale or use of certain products. Needless to say, without some encouragement in one of the above ways, the standard will not serve its original purpose.

The Certification Process

If the standard is used properly, some evidence must be provided to ensure that it is being met. This is the purpose of product certification. Manufacturers submit their products to CSA for thorough examination and testing against the requirements in the appropriate standard.

If the product is found to meet the standard, the manufacturer, through a legal agreement with CSA, is permitted to use the CSA mark as evidence on the product. Through this same agreement, CSA can inspect the manufacturing facilities, sample and test the product in the field, and require corrective actions or recalls where it is found that the product does not continue to meet the standard during ongoing production.

Thus, the presence of the CSA mark is evidence to the consumer, purchaser or regulatory authority that the product meets the appropriate standard.

Product Safety Standards for Cycling

Bicycles

The only standard directly related to cycling which has been developed by CSA is CAN3-D113.1-M80 - BICYCLES (reproduced in part in Appendix F). This standard, currently in its second edition, was originally developed in 1975. The purpose of the standard is "to help prevent injury and property damage, and to help provide maximum safety for bicycle users." It sets forth safety requirements and standards for the sub-assemblies and assemblies of regular bicycles, as well as recommended safety measures for their use and care.

The standard sets out requirements for all major components of a standard bicycle, and defines the test requirements for those components. Interestingly, it requires that bicycles meeting the standard have reflectors on the front, rear, side and pedals. The colour, location and photometric requirements are specified.

CSA also operates a certification and testing program against this standard. Some manufacturers participate in the program; however, it is not generally well supported. At this point in time only one province has mandatory requirements for manufacturers to meet the CSA standard. Obviously pressure from purchasers and consumers has not been significant enough to encourage manufacturers to voluntarily enlist in the program.

Summary

CSA is in a position to address the problems identified by the cycling community through the development of standards and certification programs. The more important question which must be addressed is the means by which these standards could realistically be set in place. Without that commitment, the considerable resources necessary to develop and maintain such standards would be wasted.

RESOLUTION 22: BICYCLE PRODUCT SAFETY STANDARD

That there should be a product safety standard for regular bicycles sold in Canada.

DISCUSSION:

The Product Standards Workshop discussed the scope of the bicycle standard and decided it should be limited to regular bicycles. This excludes track racing bicycles, tricycles and other human-powered vehicles (HPVs).

The Workshop then unanimously recommended adoption of the above resolution.

At the final Plenary session, this resolution was adopted without amendment.

RESOLUTION 23: CSA BICYCLE STANDARD

That CSA Standard "CAN3-D113.1-M80" should be adopted as the safety standard, with the following sections revised after further review:

3.3	**Chainguards**
3.5.1.2	**Pedal Clearance**
3.7.1.2	**Safety Levers**
3.8	**Tire Dimensions**
4.6	**Braking (Brake Performance)**

and by deleting Section 3.13 Lighting, including reflectivity, headlamps and rear lamps, with a view to implementation of this Section as a separate standard;

and that both standards be reviewed for updating to include component performance standards reflecting current technology levels in the industry;

and that the bicycle standard be reviewed for possible inclusion of tests on pedals, chains and other components not presently covered by the standard.

ORIGINAL AGENDA ITEMS: see below

WORKING PAPERS: See Appendix F for Current CSA Standard
Other Working Papers Under Sub-Headings Below

DISCUSSION:

At the Product Standards Workshop it was decided that CSA Standard CAN3-D113.1-M80 should be reviewed section by section. Those sections not recommended for approval by the Workshop would be reviewed by a special working committee to be struck at the conference closing and by the CSA. The sections deemed to be in need of review were:

3.3 CHAINGUARDS

Are these devices really effective? Some Workshop members felt they are unnecessary on freewheel bicycles and should not be required by the Standard.

3.5.1.2 PEDAL CLEARANCE

There was disagreement over the adequacy of a 90 mm pedal clearance.

3.7.1 HAND LEVER EXTENSIONS (safety levers)

ORIGINAL AGENDA ITEM:

Question: Should "safety" levers be banned?

Responses: Controversial.

Comment: While there is some justification for these lever extensions, their use provides very inferior control when compared to proper use of normal brake levers.

Perhaps they could be put only on children's bicycles, as their rationale is that they can be operated by smaller, weaker hands than ordinary levers.

DISCUSSION:

Experience has shown that these levers may conform to the standard initially, but in actual use soon become ineffective. Some participants felt very strongly that they should be banned.

3.8 TIRE DIMENSIONS

DISCUSSION:

There was no consensus in the Product Standards Workshop that a tire width standard should be added.

WORKING PAPER

Gilles Villeneuve Foundation

Tires

The tire width of the racing ten-speed was designed for high-speed touring on relatively even surfaces. This tire is totally inappropriate for riding conditions found in most metropolitan centres. The obstacles of drain gratings, streetcar tracks, uneven and broken pavement, potholes and refuse preclude use of a narrow racing tire. The ribbed tread pattern on most ten-speed bicycles is not designed for irregular surfaces.

Recommendation

1. Bicycles recommended for city transport should be equipped with 26" x 1.75" tires instead of the more popular 27" x 1.25" tires.

2. Traction pattern tires be recommended for use on city streets.

4.6 BRAKING

DISCUSSION:

The present standard may be inadequate; that is, braking distance should be shorter. The present braking test procedure is adequate, however. Participants stressed that brake performance must be tested as a complete assembly since braking is affected by the brake pad material and the rim material as well as by the brake lever and brake component performance.

WORKING PAPERS

Ontario Cycling Association

The lever added by some manufacturers to the bicycle caliper brake lever, sometimes called a safety lever, should be prohibited. Such levers do not allow proper use of the brakes

in emergency braking manoeuvres, and encourage a high body position that is dangerous when attempting sudden stops.

American Automobile Association Model Legislation

"12-706 - Brake Required

Every bicycle shall be equipped with a brake or brakes which will enable its driver to stop the bicycle within 25 feet from a speed of ten miles per hour on dry, level, clean pavement."

Gilles Villeneuve Foundation

Brakes

The braking systems employed on racing ten-speed bicycles are inadequate to the demands of emergency braking required when riding in city traffic. Their inadequacy is easily demonstrated. For example:

. Take a solution of 7% 10W40 oil, 3% grease and 90% acidic water. Spray the rims of a ten-speed racing bicycle, mount the bicycle and attempt to brake. The resulting lag in braking force caused by the lubricant on the rims will demonstrate two things:

(a) a simulation of braking in the wet on a city street in an emergency situation; and

(b) an inadequate braking system for emergency braking manoeuvres in the wet."

Bill Silvert, Canadian Cycling Association

Safety levers (brake extension levers) are almost universally condemned by the cycling community, but they have proved useful in special cases -- cyclists with very small hands or other restrictions. They should be dropped as standard equipment, and there should be stiffness and adjustment standards for optional levers.

Peter Kirkby, Cyclist

Brakes (Section 46)

All bicycles used on the highway should have two operating hand brakes, or one operating footbrake.

Recommendation:

. The Highway Traffic Act should be amended so that every bicycle when being ridden on a highway shall be equipped with at least two braking systems each with a separate means of application with one effective on the front wheel and one effective on the rear wheel, or alternatively one effective by foot on the rear wheel."

3.13 LIGHTING

ORIGINAL AGENDA ITEMS:

Question: What constitutes a sufficient night lighting system?

Responses: Vary from reflectors only to lights plus reflectors.

Comments: There are two components to this question:

- active lighting (generator/battery lights)
- passive lighting (reflective material)

Questions to answer include:

- Which component is most necessary?
- What minimum standards are necessary for visibility of lights and reflectors?

Question: Should the guidelines for side view passive lighting be dropped?

Responses: Controversial.

Comment: Side reflectors are aesthetically unpleasing and require incident light sources at specific angles for best effect. They show best as post hoc - cyclist was here - devices. They give little pre hoc - cyclist coming - warning. However, within their limitations they are highly effective. The white front light is pre hoc. Given a proper white front light, is sideways passive illumination necessary?

Question: Can lighting system quality standards be set?

Responses: Generally positive to equivocal.

Comment: At issue here is adequacy of product, and of power source. Mounting systems also need investigation. Since night illumination is a prerequisite of safe night operation, there is a need for guidelines on quality of product. Especially with generators, the failure rate is high. Mounting systems fail. Batteries burn out during the ride. Meeting visibility standards is only the first step to development of safe, effective lighting systems.

DISCUSSION:

At the Product Standards Workshop it was decided that bicycle lighting and reflectorization standards should form a separate CSA standard and that the present lighting standard should be deleted from the bicycle standard. The group decided that to obtain CSA certification of their bicycle product, manufacturers should not have to provide the lights and reflectors required under The Highway Traffic Act, since at time of sale it is not known if the bicycle sold will be ridden during night-time and poor weather conditions.

The separate lighting standard should be developed from the bicycle standard section 3.13 to serve as a standard for reflectors and light equipment required by the HTA.

The matter of side reflectors and retro-reflective tapes should be investigated by the working commiteee, giving particular attention to section 3.13.1.4 Side Reflectors.

It was also recommended that other component standards not presently included in the CSA Standard be developed, e.g. for chains, pedals, etc., in light of ISO Bicycle Standards for these components.

WORKING PAPERS ON LIGHTING

Canada Safety Council Survey

5.23 YUKON

Sec. 43 A bicycle, other than a pedal bicycle with motor attachment, shall carry a white lamp at the front and a red lamp or red reflector at the rear, each of which is clearly visible at a distance of at least two hundred feet.

BRITISH COLUMBIA

Sec. 173 (5) Every cycle operated on any highway between one-half hour after sunset and one-half hour before sunrise shall be equipped with a lighted lamp mounted on the front thereof capable of displaying a white light visible under normal atmospheric conditions at least five hundred feet in the direction in which the cycle is pointed, and with a red reflector of a make or design approved by the Superintendent for the purpose of this section, or a lighted lamp mounted on the rear thereof capable of reflecting or displaying a red light towards the rear. In addition to the equipment so required, every cycle that is operated on any highway shall have the most conspicuous portion of its rear mud-guard painted white.

ALBERTA

Sec. 93 (1)(b) No bicycle shall be in motion upon a highway unless the lamp or lamps with which it is required to be equipped are alight;

Sec. 127 (1) Every bicycle operated on any highway at any time during the night time hours shall be equipped with:

(a) at least one headlamp but not more than two headlamps,

(b) at least one red tail lamp, and

(c) at least one red reflector mounted on the rear.

SASKATCHEWAN

Sec. 119 (4) Every pedal bicycle with or without motor attachment shall, when on a public highway during night:

Sec. 119 (4)(a) carry on the front a lighted lamp displaying a white light visible under normal atmospheric conditions at a distance of 200 feet in the direction towards which the vehicle is proceeding;

Sec. 119 (4)(b) carry on the rear a lighted red lamp the light from which shall be visible under normal atmospheric conditions at a distance of 200 feet from the rear of the vehicle, or a red reflecting device so placed as to be illuminated by the lights of an approaching motor vehicle and so constructed as to be visible when illuminated at a distance of 200 feet from the rear of the vehicle, or a red reflecting device so placed as to be illuminated by the lights of an approaching motor vehicle and so constructed as to be visible when illuminated at a distance of 200 feet from the rear of the motorcycle or bicycle. This subsection does not apply to bicycles while in use by police officers or constables on duty.

Sec. 119 (5) A person who operates a pedal bicycle with or without motor attachment on a public highway during night not equipped in all respects in accordance with subsection (4) is guilty of an offence and liable on summary conviction ot a fine of not less than $1 nor more than $25.

MANITOBA

Sec. 140(1) Every bicycle shall carry

(a) a headlamp at the front thereof; and

(b) a lamp or reflector at the back thereof casting or reflecting a red light or a red reflection, as the case may be;

and an area not less than ten inches in length and two inches in width on the surface of the rear mudguard of every bicycle or tricycle shall be painted white and reflectorized. Am.S.M. 1970, c.70, s.52

ONTARIO

Sec. 37 (14) When on a highway at any time from one-half hour after sunset to one-half how before sunrise and at any other time when, due to insufficient light or unfavourable atmospheric conditions, persons and vehicles on the highway are not clearly discernible at a distance of 500 feet or less, every motor assisted bicycle, bicycle or tricycle shall carry on the front thereof a lighted lamp displaying a white or amber light and on the rear thereof a lighted lamp displaying a red light or a reflector approved by the Ministry, and in addition there shall be placed on the front forks thereof white reflective material, and on the rear thereof red reflective material covering a surface of not less than ten inches in length and one inch in width. R.S.O. 1970, c.202, s.37 (14); 1972, c.1, s.1; 1974, c.123, s.11 (1)

Sec. 37 (15) Every person who contravenes subsection 14 is guilty of an offence and on summary conviction is liable to a fine of not more than $5. R.S.O. 1970, c.202, s.37 (15).

NEW BRUNSWICK

Sec. 181 (1) No person shall operate a bicycle at night unless it is equipped with a lamp on the front that emits a white light visible from a distance of at least five hundred feet to the front and with a red reflector on the rear of type approved by the Registrar which shall be visible from three hundred feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle, but a lamp emitting a red light visible from a distance of five hundred feet to the rear may be used in addition to the red reflector.

PRINCE EDWARD ISLAND

Sec. 106 (1) Every bicycle when in use at night-time shall be equipped with a lamp on the front that emits a white light visible from a distance of at least five hundred feet to the front and with a red reflector on the rear that is visible from three hundred feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle, and a lamp emitting a red light visible from a distance of five hundred feet to the rear may be used in addition to the red reflector.

NO LAW IN QUEBEC, NOVA SCOTIA AND NEWFOUNDLAND

Canada Safety Council Proposal

Lights, etc.

(c) When on a highway at any time from one-half hour after sunset to one-half hour before sunrise and at any other time when, due to insufficient light or unfavourable atmospheric conditions, persons and vehicles on the highway are not clearly discernible at a distance of 150 metres (500 feet), or less, every bicycle shall carry on the front thereof a lighted lamp displaying a white or amber light and on the rear thereof a lighted lamp displaying a red light and/or red reflective equipment approved by the Department, and in addition there shall be placed on the front forks thereof white retro-reflective material as to be visible from the front of the bicycle, and on the rear thereof, red retro-reflective material as to be visible from the rear of the bicycle covering a surface of not less than ten square inches for both the front and the rear of the bicycle. Further, side reflectors shall be attached in one of the following ways to each side of the bicycle:

(i) An amber or white retro-reflector forward of the centre of the bicycle and a red or white retro-reflector rear of the centre of the bicycle.

(ii) An amber or white retro-reflector mounted on the end of each pedal.

(iii) A strip of amber or white retro-reflective material and red or white retro-reflective material mounted respectively on the front and rear wheels near the hub and concentric with the axle.

(iv) A strip of white or silver retro-reflective material on the side-walls of the front and rear tires.

In addition to all of the foregoing, if the bicycle is towing a trailer, the same requirements will apply to the rear of the trailer, and at least 10 square inches of retro-reflective material will be placed on both sides of the trailer.

S. Fram, Ministry of the Attorney General

Night Riding

What constitutes safe bicycling lighting, and should it only be required after dark?

Subsection 44(17) provides:

> When on a highway at any time from one-half hour after sunset to one-half hour before sunrise and at any other time when, due to insufficient light or unfavourable atmosphere conditions, persons and vehicles on the highway are not clearly discernible at a distance of 150 metres or less, every motor-assisted bicycle, bicycle or tricycle shall carry on the front thereof a lighted lamp displaying a white or amber light and on the rear thereof a lighted lamp displaying a red light or a reflector approved by the Ministry, and in addition, there shall be placed on the front forks thereof white reflective material, and on the rear thereof red reflective material covering a surface of not less than 250 millimeters in length and 25 millimeters in width.

Comment

These rules, if complied with, would seem sufficient to protect cyclists. While motor cycles are required to display a front and rear light during daylight hours, these vehicles are travelling at high rates of speed, and their operators are extremely vulnerable, even during daylight hours. It would not seem that daylight lighting on bicycles is either feasible or a good method of alerting motor-vehicle operators to their presence.

Ontario Cycling Association

3. Night Riding

The equipment required for night use of a bicycle should be:

- a white light on the front, facing forward;
- a red light on the rear, facing the rear;
- a red reflector on the rear, facing the rear;

which should only be required between one-half hour after sunset, and one-half hour before sunrise, or when required by atmospheric conditions. Standards for this equipment should be re-evaluated or established in order to take advantage of new technology. Rear-facing reflectors on the pedals are to be recommended as are reflective ankle bands and reflective arm bands. Reflective adhesive tape on the bicycle should not be required. (Section 44, subsection 17).

Rationale:

The required equipment is intended to be an economically viable minimum to allow safe operation of bicycles at night. The colours and practice are equivalent to those used by motor vehicles. The white front light is meant to provide illumination in the path of the cyclist, and to make the bicycle visible from the front. The red rear reflector is intended to use the high intensity light provided by motor vehicles to make the bicycle visible from the rear. The red rear light is important in instances where the bicycle is not illuminated by other lights.

The recommended additions are intended to increase the visibility of the cyclist. The ankle bands and/or pedal reflectors are recommended because the characteristic motion would clearly identify the vehicle as a bicycle. The wrist bands are particularly useful when making hand signals.

Reflective adhesive tape is not recommended. The surface available on modern cycles is usually insufficient in area and orientation to be of use as reflective surfaces, and becomes dirty very quickly. The materials presently on the market are difficult to apply and are aesthetically undesirable.

London Bicycle Safety Committee

Lighting

The bicycle should be required to have:

a) a white light on the front emitting a five candle power illumination for 500 feet

b) a white passive reflector on the front

c) white reflective tape 25 cm long, 25 mm wide divided equally on the front forks

d) a red light on the rear emitting a five candle power illumination for 500 feet

e) a red passive reflector on the rear

f) red reflective tape 25 cm long, 25 mm wide divided equally on the rear forks.

It is also recommended that consideration be given requiring the use of white reflective walled tires.

American Automobile Association Model Legislation

12-201 - WHEN LIGHTED LAMPS ARE REQUIRED

Every vehicle upon a highway within this State at any time from a half hour after sunset to a half hour before sunrise and at any other time when, due to insufficient light or unfavourable atmospheric conditions, persons and vehicles on the highway are not clearly discernible at a distance of 1,000 feet ahead shall display lighted head and other lamps and illuminating devices as respectively required for different classes of vehicles, subject to exceptions with respect to parked vehicles, and further that stop lights, turn

signals and other signaling devices shall be lighted as prescribed for the use of such devices.

12-702 - HEADLAMP REQUIRED AT NIGHT

Every bicycle in use at the times described in 12-201 shall be equipped with a lamp on the front emitting a white light visible from a distance of at least 500 feet to the front.

12-703 - REAR REFLECTOR REQUIRED AT ALL TIMES

Every bicycle shall be equipped with a red reflector of a type approved by the department which shall be visible for 600 feet to the rear when directly in front of lawful lower beams of head lamps on a motor vehicle.

12-704 - SIDE REFLECTOR OR LIGHT REQUIRED AT NIGHT

Every bicycle when in use at the times described in 12-201 shall be equipped with reflective material of sufficient size and reflectivity to be visible from both sides for 600 feet when directly in front of lawful lower beams of head lamps on a motor vehicle, or, in lieu of such reflective material, with a lighted lamp visible from both sides from a distance of at least 500 feet.

12-705 - ADDITIONAL LIGHTS OR REFLECTORS AUTHORIZED

A bicycle or its rider may be equipped with lights or reflectors in addition to those required by the foregoing sections.

Bill Silvert, Canadian Cycling Assocition

Night riding -- Bicycle lighting is still changing and should not be frozen by legislation. Decent lighting systems are too expensive and heavy to write into law at present. Many bicycles are only used during the daytime, and these should not be required to carry lights.

Peter Kirkby, Cyclist

2.9 Reflectors (Section 44(17)

The requirement for reflectors in Section 44 (17) is unnecessarily specific when there are many reflectors available. Indeed. it is so specific very few bicycles may adhere to the requirement. The need for safety is paramount, not the need to adhere to such tight requirements. An option is that there be a yellow or white reflector on the front of the bicycle and a red reflector on the rear of the bicycle. An alternative is that there be a reflector on the front, white or yellow and on the rear, red, such that a reflector is operative regardless of the approach of a motor vehicle.

Recommendation:

9. The Highway Traffic Act should be amended to cover revised requirements for reflectors on bicycles.

Mrs. Morizet-McDonald, Pedestrian Representative

- Lights front and back on bicycles should be mandatory (Traffic Act should require red light at the back and not only reflectors, also front lights should be powerful enough to be seen by pedestrians ready to engage in "crosswalks" or getting out of a shop or even of a bus ... as very often cyclists having no lights whatsoever ride on sidewalks at night.

DISCUSSION OF OVERALL RESOLUTION

The concern was raised that manufacturers and importers usually ship their bicycles unassembled: how could they be certain that their retail assembled product would conform to the bicycle standard? It was decided that manufacturers and importers should not have to ship fully assembled bicycles, but that they should provide specifications for correct assembly of the product by the retailer, since the manufacturer remains responsible for its product conforming to the standard at point of sale.

At the final Plenary session, this resolution was adopted without amendment.

RESOLUTION 24: MANDATING THE STANDARD NATIONALLY

That CSA Standards "CAN3 - D113.1 - M80" as revised in accordance with Resolution 23, and the lighting standard called for in Resolution 23 should be mandated on a national basis, if the impact on the small manufacturer and importer can be resolved.

ORIGINAL AGENDA ITEM:

Question: How much of any recommended Product Safety Standards goes to the Highway Traffic Act, and how much to other bodies? What other bodies?

Comment: It is time to decide between voluntary and official regulation.

The Product Standards Workshop submitted the following draft resolution to the first Plenary session:

That CSA Standard CAN3-D113.1-M80 as revised by Resolution 23, should be mandated on a national basis (this may be best achieved by including the bicycle under The Hazardous Products Act).

DISCUSSION:

A voluntary CSA certification program for bicycles may not be adequate, as bicycle importers and manufacturers might not seek certification unless required to by law. A mandatory certification programme would have to be nation-wide to be effective, since imported and domestically built bicycles are sold throughout Canada. To have the sale of bicycles regulated by the federal government under The Hazardous Products Act, it may be necessary to prove that unsafe bicycles are being sold in Canada and are a cause of accidents.

Funding for the revision of the CSA standard and costs of a CSA bicycle certification programme were discussed. The cost of establishing the standards would have to be borne by interest groups, the manufacturers and the various levels of government. The continuing cost of certification would be borne by the manufacturers seeking CSA certification for their product.

After the first Plenary session, the Product Standards Workshop re-opened discussion on the above draft resolution.

SECOND DISCUSSION:

In the Product Standards Workshop numerous concerns were raised about the ramifications of a mandated CSA bicycle certification programme:

- The cost of certification may cause hardship to many small custom bicycle manufacturers and small importers, and might be ruinous to some of them.

- How would CSA certification testing be performed on "one-of-a-kind" custom bicycles? Dr. McCarthy offered that there are alternative certification methods that would not subject "one-of-a-kind" bicycles to destructive tests.

- There will have to be more study done by the Working Committee to determine the effect of CSA certification requirements on imports of bicycle frames and bicycle parts. Foreign manufacturers may in many cases be confirming to ISO Standards.

- There should be no exceptions, such as waivers, to the CSA certification programme.

Following this discussion, the Workshop recommended adoption of the following draft resolution:

That CSA Standard CAN3-D113.1-M80 as revised by Resolution 23 above, and the lighting standard should be mandated on a national basis, if the impact on the small manufacturer and importer can be resolved. This may be best achieved by requesting Consumer and Corporate Affairs Canada to include the bicycle and bicycle lighting equipment under The Hazardous Products Act.

At the Plenary session strong objection was voiced to any mention of the Hazardous Products Act in the resolution, since this seemed to imply that the bicycle was hazardous. In response, W. Coffman pointed out that hockey helmets, baby cribs and carriages were also included under the Hazardous Products Act. Others objected that the bicycle was a vehicle and should therefore be treated under different, i.e. traffic-related legislation. K. Gupta pointed out that use of the Hazardous Products Act was the best and certainly shortest way to get such standards mandated.

After further discussion, the Conference voted to delete the second sentence and adopt the resolution as amended.

RESOLUTION 25: HELMET STANDARD

That there is a need for a CSA Bicycle Helmet Standard and a CSA Certification program for bicycle helmets to be sold in Canada.

ORIGINAL AGENDA ITEM:

Question: Can helmet standards be set? What about standards for small children's helmets?

Responses: Consensus: more research.

Comment: Perhaps a recommendation to specific action with a specific time line is necessary.

DISCUSSION:

At the Product Standards Workshop Mr. K. Gupta of Consumer and Corporate Affairs Canada submitted a report titled "Canadian Accident Injury Reporting and Evaluation Analysis of Accidential Injuries Involving Bicycles 1985, for 30 months from 1982 to 1984". The report showed that of the injuries sustained by all age groups in the nation-wide survey of five hospitals, 25% were head-related injuries. It was pointed out that 5-14 years was the largest age group in the report and this was probably because two of the five hospitals involved are children's hospitals. It was felt that more hospitals should participate in this type of survey so that the need for bicycle helmets can be correctly assessed.

The CSA is currently preparing a comprehensive head protection standard and could be approached to study the possibility of a bicycle helmet standard for Canada.

The Product Standards Workshop did not find it appropriate to discuss the question of mandatory wearing of bicycle helmets (see Resolution 11).

In forwarding the above Resolution to the Plenary session, the Workshop noted "more research needs to be conducted to determine the types of injuries sustained and the degree of protection offered by helmets already in use."

At the final Plenary session Resolution 25 was adopted without amendment.

WORKING PAPERS

S. Fram, Ministry of the Attorney General

5.25 Should helmets be mandatory?

There would appear to be no demonstrable evidence that the use of helmets by bicyclists leads to fewer accidents. The evidence seems to be that cyclists wearing helmets would be more severely injured than were they not wearing helmets. There is a significant question of whether bicyclists wearing helmets are thereby given a false sense of security which leads to a more aggressive style of cycling. There seems to be growing evidence in connection with the use of protective equipment in hockey to the effect that greater

protection may lead to a sense of invulnerability which gives rise to risks leading to serious injury.

London Bicycle Safety Committee

It is suggested that children's helmets be made adjustable to accommodate growth. It is further suggested that an educational campaign be established to encourage the use of helmets, and that all helmets are trimmed with dayglow and reflective strips.

Canadian Standards Association

CSA does not have standards for cycling helmets. Standards do exist, however, for other forms of head protection, namely, Industrial Protective Headwear (Z94.1-M1977), Hockey Helmets (Z262.1-M83) and Safety Helmets for Motorcycle Riders (D230-1970). These standards were separately and individually developed with requirements considered important in each specific case. The standards all include general requirements for materials, construction, and weight. Specific requirements are also included for impact strength, penetration, flammability, dielectric strength and other characteristics unique to the ultimate use of the equipment.

Certification programs exist for all 3 head protection standards, and are well supported. Legislation or requirements enforced by voluntary organizations, such as the Canadian Amateur Hockey Association have been in place across Canada for some time.

Aside from these specific areas, overtures have been made to CSA over the past years for head protection standards for cyclists, equestrians, skiing, firefighters and crowd control police activities. The broadly based need and necessary resource support, however, has not been demonstrated.

To better address this need, CSA has undertaken to examine the issue of 'Head Protection' at the instigation of the Technical Committee on Protective Equipment for Hockey and Lacrosse Players. Although this study has had a slow start, it is intended to review and compare the requirements in the existing standards, examine the areas of commonality, identify the factors critical in the provision of head protection in general, and make recommendations regarding the requirements in head protection standards and testing programs. It could be expected that a broader set of general requirements may be put in place, from which it would be easier to address the needs of other forms of head protection such as those mentioned above, and including cyclists.

Gilles Villeneuve Foundation

At present there are no Canadian Standards Association standards mandated by government for bicycle helmets. As well, there is no law requiring the use of helmets while riding in city traffic. This, despite the fact that head injury, concussion and facial damage account for the majority of serious accidents involving cyclists.

Recommendation:

1. A CSA standard be established and mandated by provincial law.

2. The City of Toronto adopt a by-law requiring cyclists to wear a CSA-approved helmet while riding on major arterial traffic routes.

6. WORKING COMMITTEE ON CYCLING AND THE LAW

The Conference agreed at its final Plenary session that it was important to establish a mechanism for continuing its work in the future and for following through to ensure there is some action as a result of its recommendations.

The Conference voted to establish two separate Working Committees. That on Cycling and the Law has the following tentative membership (subject to revision):

Mike Barry, Bicyclesport
Steve Beiko, City Cycling Committee
Patricia Chertkow, Ontario Ministry of Transportation and Communications
Pat Curran, Canadian Automobile Association
Ted Dash, Gilles Villeneuve Foundation
Stephen Fram, Ontario Ministry of the Attorney General
Rick Fruin, Ontario Police College
Peter Hurley, Ontario Cycling Association
John Kenyon, Ontario Traffic Conference
Peter Kirkby, cyclist
Linda Kowal, Velo Ontario
Mrs. Morizet-McDonald, pedestrian
Jim Pryer, City of Toronto Department of Public Works
Josh Roberts, cyclist
Kate Sutherland, Energy Probe
Bruce Timmermans, Citizens for Safe Cycling
Deborah Wilkins, Ontario Ministry of the Attorney General/cyclist

Corresponding Member:

Gerry Pareja

It was agreed to ask the Metropolitan Toronto Police Department to appoint a representative.

Alderman Jack Layton agreed to convene the first meeting of the Committee on Cycling and the Law during February 1985.

Certain matters were referred by the Conference to the two Working Committees. Beyond these, each Committee will determine its own agenda. However, various items of business arising from the Conference may merit their attention. These include matters on which no resolution was passed and matters not discussed at the Conference. The rest of this chapter lists issues of each type, and notes if it was a REFERRED item, a NO ACTION item, or a NOT DISCUSSED item. Several ADDED items which arose during the course of the Conference are listed at the end.

ITEM A: PENALTIES FOR CYCLISTS

(draft resolution - REFERRED)

That municipal councils be encouraged to amend their traffic by-laws to provide that moving violations by motor vehicle operators and cyclists should be assessed the same penalties as are provided for motor vehicle operators under the Highway Traffic Act.

ORIGINAL AGENDA ITEM:

See Chapter 4, Resolution 20, p. 62

DISCUSSION:

The Enforcement Workshop recommended this resolution to cover cyclist violations of ordinances governing riding on sidewalks, which is not covered by the HTA. Workshop members felt that this violation should be treated as seriously as any other violation. Only moving violations were specified as it was felt that parking violations should not be dealt with in the same way. Reference to motor vehicle operators as well as cyclists was incorporated for the sake of fairness, since motor vehicle operators are not currently assessed the fines provided for in the HTA for moving violations involving municipal ordinances.

This draft resolution was referred to the Working Committee because there was insufficient time to address it.

ITEM B: BIKE PATH LAW ENFORCEMENT

(draft resolution - REFERRED)

It is recommended that every municipality which designates routes which may be used by cyclists which are not on public road allowances, take all steps necessary to acquire authority from the owners of all parts of such routes to enable the municipality to establish and enforce rules governing the use of such routes. Enforcement should include violations of the established rules by cyclists and violations of cyclists' rights by others.

ORIGINAL AGENDA ITEM:

Question: Enforcement on bicycle paths: what and how?

Comment: Heavily-used bicycle paths are a relatively new phenomenon. What laws should apply there? Who should enforce them? How? Are insurance implications different on bicycle paths than on streets because the same laws do not apply?

Members of the Enforcement Workshop expressed general puzzlement over how to resolve this item.

D. McCluskey asked why there is a 20K speed limit on Toronto park trails and how it is enforced.

A. Strange replied that there are no provisions for enforcement that he knows of.

M. Phillips noted that the main problem leading to accidents on the paths is the way the paths are designed: they need to be made wider.

H. Pym said he had no idea how to solve the problem and would appreciate any suggestions.

L. Falkenstein suggested banning bicycles from the paths.

L. Reilly agreed.

D. McCluskey noted that paths serve as a valid recreational facility and are not intended to substitute for or in any way undermine the use of the roads by serious cyclists for commuting or other utilitarian purposes. He insisted that paths cannot serve this purpose but that they nonetheless ought to be admitted as purely recreational facilities.

It was noted that the problem of enforcement is compounded by the fact that parks and ravines often run within the jurisdiction of more than one authority and that no one municipality or conservation authority may be willing to take on responsibilities for policing the whole park. It was also noted that before any rules can be enforced, somebody needs to be recognized as having the authority to lay down rules. The draft resolution was accepted by all in the Enforcement Workshop as a first step toward dealing with this thorny issue.

At the final Plenary session there was insufficient time to discuss this draft resolution; it was therefore referred to the Working Committee.

ITEM C: BIKE PATH SAFETY

(draft resolution - NO ACTION)

"Separate bicycle paths are being built within the road (highway) allowance. These are not always located, designed and maintained in the interests of traffic safety, and the current law in Ontario does not properly govern the behaviour of cyclists and other road users.

Resolved:

(a) That the Ontario Traffic Conference be asked to study the design and location of such bicycle paths with the view to establishing minimum safe standards.

(b) That the Minister of Transportation and Communications be asked to review the rules of the road applicable to bicycle paths to determine whether they are adequate."

Question: The Bicycle path: who has jurisdiction? Are they under the Highway Traffic Act? If not, how should traffic rules be applied there?

Comment: Bike path behaviour has many implications (i) accident reporting and obligation to stay at scene, (ii) cyclist liability in cyclist-pedestrian on-path accidents, (iii) enforcement - what and how?

DISCUSSION:

The above draft resolution was proposed by R. Fruin arising out of discussion on Resolution 8 at the Traffic Law Workshop.

This draft resolution was inadvertently omitted from the agenda for the final Plenary session.

ITEM D: REQUIREMENT TO PROVE NEGLIGENCE

(draft resolution - REFERRED)

That the Government of Ontario be requested to amend the Highway Traffic Act to provide that cyclists involved in collisions with pedestrians be required to disprove negligence.

ORIGIN:

This item was not on the Conference agenda, but arose out of the debate on use of sidewalks.

DISCUSSION:

At the Enforcement Workshop it was felt that if cyclists under 12 were to be permitted on sidewalks something would have to be done both to protect pedestrians and to dissuade cyclists from using the sidewalks irresponsibly. This recommendation was supported by a majority of Workshop members; however, some expressed strong reservations, fearing that if implemented the policy would prove to be too powerful.

At the final Plenary session this item was hotly debated. Some objected to it as making life harder for cyclists, while others felt it was an important step towards responsible cycling. M. Labreque said it would be consistent with the law in Quebec, which always places the onus on the larger vehicle in a hierarchical fashion, and seems to work well. Others argued that Ontario law was very different, with its roots in English common law and the assumption of innocence unless proven guilty (Quebec law derives from the Napoleonic Code).

A participant pointed out that to adopt the resolution would be inconsistent with Principle D, which calls for mutual responsibility. A cyclist commented that if the resolution were passed, it should apply only to sidewalks and pedestrian crossings - not on the streets.

By a vote of 21 to 19 among those present and voting, the Conference decided to refer this matter to the Working Committee on Cycling and the Law.

WORKING PAPERS

S. Fram, Ministry of the Attorney General.

There is considerable danger for pedestrians where bicyclists use sidewalks without great caution. There is no provision in the legislation similar to that contained in subsection 167(1) of the Highway Traffic Act. The effect of 167(1) is that, where a pedestrian or bicyclist or other non-motor vehicle user of a highway is injured in a collision with a motor vehicle, the onus of proving that loss or damage did not arise from the negligence of the driver of the motor vehicle is upon the driver of the motor vehicle. It would be possible to create a similar provision with respect to collisions between bicycles and pedestrians occurring on sidewalks. The provision would cast the onus of disproving negligence on the rider of a bicycle. However, this would raise further issues as to the requirement of a bicycle rider to identify him or herself and also the issue of liability insurance for bicycle riders.

ITEM E: CHILDREN ON SIDEWALKS

(REFERRED)

Issues related to the use of sidewalks by cyclists under twelve years of age.

ORIGIN:

This matter was referred to the Working Committee for further study as a direct result of the Plenary session debate on Resolution 4, reported in Chapter 3.

ITEM F: MINIMUM AGE FOR ON-STREET BICYCLE RIDING

(NOT DISCUSSED)

The matter of on-street riding by children came up in the debate on Resolution 4 (Chapter 3). It was considered by many Conference participants to be an issue of serious concern meriting further study and discussion. This would have been the third item addressed by the Traffic Law Workshop if additional time had been available.

ITEM G: WRONG-WAY RIDING ON ONE-WAY STREETS

(NO ACTION)

ORIGINAL AGENDA ITEM:

Question: Should cyclists be allowed to ride the wrong way on some one-way streets?

Responses: Generally negative.

Comment: Could a wrong-way bike lane sometimes be effective? (traffic engineering).

DISCUSSION:

At the Traffic Law Workshop there was consensus that wrong-way riding should not be permitted as a general rule, but some felt it should be permitted in special circumstances. Advocates of the latter position distinguished between functional one-way streets designed to speed traffic movement (e.g., Richmond and Adelaide in downtown Toronto) and neighbourhood one-way street systems designed to reduce through traffic (mazes).

Some cyclists and police representatives advocated elimination of mazes to facilitate cycling, but J. Layton and others said this was politically unrealistic.

It was proposed:

"That a standard set of signs be developed to allow for bicycles to be excepted from no entry and one-way street regulations."

It was suggested that legally excepting bicycles from a one-way street regulation was not advisable (and perhaps not legally possible, notwithstanding some existing circumstances in Metro), but that a two-way street on which one of the directions was a "bicycles only" lane would be possible. Some participants felt there was insufficient room for this on most neighbourhood streets. K. Sutherland and others disagreed, pointing out that these had previously been two-way vehicular streets.

Due to lack of consensus, the Workshop decided to take no action on this item.

ITEM H: ROLLING STOPS

(NO ACTION)

ORIGINAL AGENDA ITEM:

Question: Should rolling stops be allowed?

Responses: Generally negative.

Comment: Problem of overkill/devaluing stop signs, where they are used as traffic discouragement. Debate yield versus stop signs versus no control in residential areas. Vancouver uses no controls.

Question: Problem of use of traffic by-laws for neighbourhood traffic control - where do you draw the line?

Comment: It is literally exhausting to stop and go every block. Inconvenience without justification breeds law contempt.

DISCUSSION:

At the Traffic Law Workshop S. Fram suggested this be dropped from the agenda, since police virtually never ticket cyclists who exercise due caution but treat a four-way stop as though it were a "yield" sign. Other participants said they had received tickets in such situations.

Some cyclists claimed that making a stop could be more dangerous than a yield type manoeuvre.

There was general agreement that the use of neighbourhood stop signs and traffic mazes had the effect of making more cyclists use arterial streets, which some participants felt were inherently more dangerous.

The Workshop agreed that this was a problem, but decided not to pass any resolution on the issue.

ITEM I: BICYCLE THEFT

(REFERRED)

ORIGIN - SEE RESOLUTION 12

As an outcome of the discussion on Resolution 12, "That it is undesirable to implement a bicycle registration program", the Conference agreed to ask the Working Committee on Cycling and the Law to look at measures to reduce bicycle theft.

ITEM J: LICENSING OF COMMERCIAL CARRIERS

(NO ACTION)

ORIGINAL AGENDA ITEM:

Question: Should commercial bicycle users have a special license?

Responses: Some positive, one negative, most equivocal.

Comment: This question leads into two others (i) should such licenses be municipal or provincial and (ii) what are the insurance implications?

DISCUSSION:

At the Enforcement Workshop, the matter of licenses for commercial carriers was discussed only briefly, as an incidental part of the discussion on cyclist licensing (see Chapter 4, Resolutions 13-16). No conclusions were reached.

WORKING PAPERS

Mrs. Morizet-McDonald, Pedestrian Representative

Should commercial bicycle users have a special license? Definitely yes. Particularly "peddy-cabs" transporting passengers, and couriers.

- Couriers, I am told, are a real menace on sidewalks on King, Bay, Yonge, Queen and Bloor.
- Peddy-cabs, with passengers, have been seen riding on sidewalks in the Yorkville area yet the streets are "one-way" and no curb parking!
- For commercial bicycles a permit should be issues for the vehicle itself and a special authorization to ride such a vehicle to the cyclist, after making certain that he/she knows traffic laws.
- A system of points should be applied for vehicles and riders of that category (commercial).
- Insurance for third party liability should be mandatory for owners of "peddy cabs" and couriers, covering greater risks.

NOTE: See comments from working papers re Enforcement Resolution 16 and A Keynote Address by Larry Reilly, Appendix B.

ITEM K: HEADPHONES

(NOT DISCUSSED)

ORIGINAL AGENDA ITEM:

Question: Should headphone devices other than hearing aids be banned?

Responses: Generally positive.

Comment: Why not loud car stereos and motorcycle stereos too. Anti-comment - hearing more crucial to cyclists.

DISCUSSION: NONE. THIS WAS CONSIDERED A LOW PRIORITY ITEM.

ITEM L: DEFINITION OF BICYCLE

(NOT DISCUSSED)

ORIGINAL AGENDA ITEMS:

Question: For the future: can the definition of a bicycle be expanded to include other Human-Powered Vehicles (HPVs)?

Comment: Could be one or two definitions, or more. Need to know what HPVs can do.

Question: Should the above definitions be written into Ontario traffic law?

Comment: At present they are not written in.

DISCUSSION:

W. Silvert and others suggested it was important to arrive at a definition of "bicycle". The Traffic Law Workshop placed this as a low priority item on its agenda, however, and it was not discussed.

WORKING PAPERS

Canada Safety Council Survey

British Columbia - Sec. 121 - In this part, "cycle" means a device having any number of wheels that is propelled by human power and on which a person may ride.

Alberta - Sec. 1(3) - "Bicycle" includes any cycle propelled by human power upon which a person may ride, regardless of the number of wheels it may have. Section 121(2) - In this Part "cycle" means a bicycle or a motorcycle.

Manitoba - Sec. 2(3) - "Bicycle means a device propelled by human power upon which any person may ride, and that has two tandem wheels either of which is more than twenty inches in diameter; and includes a device so propelled and that may be so ridden, and that has three wheels each of which is more than twenty inches in diameter.

New Brunswick - Sec. 1 - "Bicycle" means every device propelled by human power upon which any person may ride, having two tandem wheels.

Prince Edward Island - Sec. 1(a 1) - "Bicycle" means every device propelled by human power upon which a person may ride, having two tandem wheels.

Newfoundland - Sec. 2(e) - "Bicycle" means every device propelled by human power upon which a person may ride, having two tandem wheels.

No definition by Yukon, Saskatchewan, Quebec and Nova Scotia.

Ontario - No definition (has one for "motor assisted bicycle").

Canada Safety Council Proposal

"Bicycle" means a vehicle propelled by muscular power having steering handlebars completely constrained from rotating in relation to the axle of one wheel in contact with the ground and designed to travel on not more than three wheels in contact with the ground and on which the vertical distance between horizontal ground level and the point of the seating surface of the seat intercepted by the extension of a seat post centre line is not less than 25 inches (65 cm), when the seat is adjusted to its highest riding position, and includes a bicycle not requiring special authorization to be used on public thoroughfares.

American Automobile Association Model Legislation

Chapter 1 - Words and Phrases Defined (1-105) - Bicycle - Every vehicle propelled solely by human power upon which any person may ride, having two tandem wheels, except scooters and similar devices.

Bill Silvert, Canadian Cycling Association

A cycle is a wheeled vehicle with seats for one or more riders which is propelled exclusively by the human power of the riders.

ITEM M: MECHANICAL STANDARDS

(NOT DISCUSSED)

ORIGINAL AGENDA ITEM:

Question: Can standards of bicycle operating mechanical safety be legislated?

Responses: All positive.

Comment: Adopt principle, let product safety group work out specifics.

This was a sufficiently high priority item that it would have been the first to be dealt with by the Traffic Law Workshop if additional time had been available. (See also Principles I, J and L and Resolutions 22 and 23.)

WORKING PAPERS, BRAKES, ETC.:

Canada Safety Council Survey

ALBERTA

Sec. 127 (2) No bicycle shall be operated upon a highway unless it is equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

NEW BRUNSWICK

Sec. 181 (3) No person shall operate a bicycle unless it is equipped with a brake which will enable a driver to make the braked wheels skid on dry, level, clean pavement. 1955, c.13, s.163; 1961-62, c.62, s.58, 59; 1973, c.59, s.1.

NEWFOUNDLAND

Sec. 8.5 A bicycle shall be equipped with at least one brake capable of controlling the movement of and of stopping the bicycle. Hwy. Traffic Act - Licensing and Equipment Regulations, 1970 page 31.

NO LAW IN YUKON, BRITISH COLUMBIA, SASKATCHEWAN, MANITOBA, ONTARIO, QUEBEC, NOVA SCOTIA AND PRINCE EDWARD ISLAND

Canada Safety Council Proposal

1. Every bicycle when being operated on a highway shall be equipped with an effective braking system.

S. Fram, Ministry of the Attorney General

Can standards of mechanical safety be legislated?

The federal government has already established product safety standards for bicycles at the manufacturing level. The question, therefore, only has significance in the area of the maintenance of bicycles after they have been purchased by the consumer.

There is no reason why simple standards of mechanical safety for bicycles on the road cannot be legislated, for example: "Brakes shall be in working order". However, enforcement of such vague standards would be highly subjective. (What is sufficient "working order"?)

Establishing more specific criteria poses its own problems of deciding what the standards should be. (Over what distance must the brakes be able to stop the bicycle travelling at X kph to be safe?) Yet such specific criteria would also pose enforcement problems. How and when would the testing required to enforce these standards be administered? How would the tests be paid for?

The establishment and enforcement of mechanical safety standards would probably have little effect on reducing cycling accidents because of the enforcement difficulties yet could prove quite costly.

American Automobile Association

12-709 INSPECTING BICYCLES

A uniformed police officer may at any time upon reasonable cause to believe that a bicycle is unsafe or not equipped as required by law, or that its equipment is not in proper adjustment or repair, require the person riding the bicycle to stop and submit the bicycle to an inspection and such test with reference thereto as may be appropriate.

Canada Safety Council Proposal

"Bicycle" means a vehicle propelled by muscular power having steering handlebars completely constrained from rotating in relation to the axle of one wheel in contact with the ground and designed to travel on not more than three wheels in contact with the ground and on which the vertical distance between horizontal ground level and the point of the seating surface of the seat intercepted by the extension of a seat post centre line is not less than 25 inches (65 cm), when the seat is adjusted to its highest riding position, and includes a bicycle not requiring special authorization to be used on public thoroughfares.

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Bill Silvert, Canadian Cycling Association

A cycle is a wheeled vehicle with seats for one or more riders which is propelled exclusively by the human power of the riders.

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WORKING PAPERS, BRAKES, ETC.:

Canada Safety Council Survey

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S. Fram, Ministry of the Attorney General

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There is no reason why simple standards of mechanical safety for bicycles on the road cannot be legislated, for example: "Brakes shall be in working order". However, enforcement of such vague standards would be highly subjective. (What is sufficient "working order"?)

Establishing more specific criteria poses its own problems of deciding what the standards should be. (Over what distance must the brakes be able to stop the bicycle travelling at X kph to be safe?) Yet such specific criteria would also pose enforcement problems. How and when would the testing required to enforce these standards be administered? How would the tests be paid for?

The establishment and enforcement of mechanical safety standards would probably have little effect on reducing cycling accidents because of the enforcement difficulties yet could prove quite costly.

American Automobile Association

12-709 INSPECTING BICYCLES

A uniformed police officer may at any time upon reasonable cause to believe that a bicycle is unsafe or not equipped as required by law, or that its equipment is not in proper adjustment or repair, require the person riding the bicycle to stop and submit the bicycle to an inspection and such test with reference thereto as may be appropriate.

ITEM N: NIGHT RIDING EQUIPMENT

(NOT DISCUSSED)

ORIGINAL AGENDA ITEM:

Question: Night riding: what constitutes safe lighting, and should it only be required after dark?

Responses: Equivocal.

Comment: Decide on whether only after dark or not; refer proper lighting to product safety group.

This would have been the second item addressed by the Traffic Law Workshop if additional time had been available. The issue dealt with would have been broadened to include "other safety equipment" as well. See also Principle K, Resolution 24 and Chapter 7: Item A.

ITEM O: SOUNDING DEVICES

(REFERRED)

ORIGINAL AGENDA ITEM:

Question: Are bells and other sounding devices worthwhile as mandatory attachments to bicycles?

Responses: Controversial. While most say no, it is only five to three against.

Comment: There are two issues here:

- Are hand-operated sounding devices effective in all sound environments?
- Does sounding device operation interfere with bicycle control in emergency situations?

Unless the answer to the first question is always "yes" and the answer to the second question is always "no", can the devices be justified as mandatory attachments?

DISCUSSION:

At the Product Standards Workshop, it was recommended that the matter of standards for sound devices be referred to the Working Committee on Product Safety Standards. At the final Plenary session, that recommendation was amended to refer it also to the Working Committee on Cycling and the Law (see also Chapter 3 - Resolution 10).

ITEM P: CHILD CARRIERS

(REFERRED)

ORIGINAL AGENDA ITEM:

Question: What constitutes a safe design for a baby seat?

Responses: Controversial - some don't even want them.

Comment: There are various proposals:

- Ban them.
- More research.
- The London proposal
- Seats only mounted backward. With high seats, this prevents whiplash during fast stops.

DISCUSSION:

At the Product Standards Workshop, it was recommended that the matter of standards for child carriers be referred to the Working Committee on Product Safety Standards. At the final Plenary session, that recommendation was amended to refer it also to the Working Committee on Cycling and the Law (see also Chapter 3 - Resolution 10).

WORKING PAPERS

London Bicycle Safety Committee

A baby or child's seat should:

(a) be bolted to the rear forks and seat post of the bicycle

(b) have the back sufficiently high to extend beyond the top of the child's head

(c) have a U-shaped leg and foot guard

(d) have a protective shield over the rear tire

(e) be constructed of strong lightweight material of similar quality as approved heimets

(f) be shaped around the sides of the child with padding for comfort

(g) incorporate a 'seat belt' or bar to protect the child from a sudden forward motion

Canadian Standards Association

Standards do not exist for Children's Seats on bicycles. No doubt a standard could be developed which would address the physical and material aspects of the product. Several

years ago this was even considered. A basic problem in this instance, however, focuses on the enforcement of such a standard and the element of protection which can be offered relative to the hazards involved in the basic situation of a young child riding on the back (or front) of a bicycle. Once again, the concerns over the applicability of a standard in this instance must be addressed.

Mrs. Morizet-McDonald, Pedestrian Representative

. Baby-seats should be entirely forbidden. Traffic Act Art. 154 (2) reads

"No person riding on a bicycle designed for carrying one person only shall carry any other person thereon". This should apply to baby-seats.

Furthermore, having a child on a baby seat on a bicycle is very often given as a reason - and an excuse - for riding on the sidewalk ... and often too slowly for having a good balance ... This is a real menace for the pedestrians.

ITEM Q: INSURANCE

(NOT DISCUSSED)

ORIGINAL AGENDA ITEM:

Question: Are there insurance implications to any of the (alternative licensing) strategies?

Responses: Some positive.

Comment: While cyclists with household or apartment insurance already have third party liability insurance, the question of accident liability and insurance for cyclists in general is not well understood.

DISCUSSION:

This received only incidental discussion at the Enforcement Workshop in the context of the licensing debate (see Chapter 4, Resolutions 13-16).

See also Item D in this Chapter, and original agenda item re Resolution 21 in Chapter 4.

OTHER MATTERS

Various other matters incidental to the main theme of the Conference came up in the course of its proceedings and may merit further work by the ongoing committees. These have been identified by asterisks in the preceding chapters, and include:

ITEM R (ADDED)

The possible need to amend various sections of the HTA to read "vehicle" where it presently reads "motor vehicle" (discussion on Resolution 1).

ITEM S (ADDED)

A need to educate drivers to increase their leeway when passing cyclists to avoid "brushing" accidents (discussion on Resolution 2).

ITEM T (ADDED)

The need for paved shoulders on Ontario highways (discussion on Resolution 2).

ITEM U (ADDED)

The need to educate police about cyclists' need to ride a straight line well out from the curb for safety reasons (discussion on Resolution 3).

7. PRODUCT SAFETY WORKING COMMITTEE

The Conference agreed at its final Plenary session that it was important to establish a mechanism for continuing its work in the future and for following through to ensure there is some action as a result of its recommendations.

The Conference voted to establish two separate Working Committees. That on Product Safety has the following tentative membership (subject to revision):

Mike Barry, Mariposa Bicycles
Steve Beiko, City Cycling Committee
Bill Cassidy, Guvin Company
Bill Coffman, City Cycling Committee
Peter Coffman, Pedlar Cycles
Ceri Evans, City Cycling Committee
Joachim Gottschalk
Murray Hattin, Ministry of Transportation and Communications
Jim McCarthy, Canadian Standards Association
Harvey Newman, Traffic and Parking, Kitchener
David Sandquist, Bloor Cycle
Bill Silvert, CCA Advocacy Committee
Bruce Timmermans, OCA
Cary Vokes, Raleigh Industries

Corresponding Members:

Kamlesh Gupta, Consumers and Corporate Affairs Canada
Gerry Pareja, CCA Advocacy Committee
Ron Plaunt, Velo Ontario

Bill Coffman agreed to convene the first meeting of the Product Safety Committee.

MATTERS REFERRED

On the recommendation of the Product Standards Workshop, the Conference asked the Working Committee to do further work on Product Safety Standards respecting:

ITEM A: REFLECTIVE APPAREL

ORIGINAL AGENDA ITEM:

Question: Should specific clothings, such as safety vests, be made safety requirements?

Responses: Generally negative.

Comment: There is a suggestion that more research be done in this area. An alternative is that reflective clothing material that meets CSA standards be accepted after dark in place of bicycle reflective material, i.e. reflective leg bands or heel spots in place of pedal reflectors, etc.

ITEM B: MIRRORS

Origin: Product Standards Workshop

ITEM C: THE STANDARD FOR BICYCLE MAINTENANCE.

ORIGINAL AGENDA ITEM:

Question: What is a mechanically sound bicycle?

Responses: "This needs discussion." "Let experts set the standards."

Comment: There are experts in this workshop. Police need guidelines for enforcement. The key areas to discuss are brakes, wheels, steering.

ITEM D: SOUNDING DEVICES

Origin: see Chapter 6, Item 0

ITEM E: CHILD CARRIERS

Origin: see Chapter 6, Item P

8. EDUCATION SEMINAR

It is well recognized in cycling planning circles that enforcement must go hand in hand with education. People must learn correct behaviours before the enforcement of laws will have much effect. Enforcement of laws motivates people to educate themselves.

It was, therefore, natural to find that the Conference on Cycling and the Law would have in attendance a number of people who are among those most deeply concerned with cycling education in Canada.

It was also natural to arrange a seminar for those people. This was an adjunct to the Conference on Cycling and the Law, and a first step toward an improvement in and rationalization of cycling education and its delivery in Canada.

The result of the seminar was a consensus that there is a need for joint efforts in the cycling education field. Educating adults was seen as the top priority in the short term. In the long term, there is a need to develop criteria for age-related cycling education content for inclusion in school programs across the country, perhaps as part of a larger traffic education program covering pedestrian behaviour and driver education as well as cycling education.

To accomplish this, it was decided to develop a proposal for a Working Committee on Cycling Education in Canada, to be initiated and with results co-ordinated by the City of Toronto's Bicycle Safety Co-ordinator. The list of potential participants is:

Denise Ashby, Canadian Cycling Association
Barbara Barak, Ontario Safety League
Denys Beames, City of Toronto, OCA, CCA
Bill Coffman, City Cycling Committee, OCA
Lorne Falkenstein, City Cycling Committee, OCA
Doug Crosbie, Ontario Association of Chiefs of Police
Pat Curran, Canadian Automobile Association, Metro Safety Council
Ted Dash, Gilles Villeneuve Foundation
Brenda Fieldhouse, London Bicycle Safety Committee
Daniel Gadbois, Velo Ontario
Dr. McInenly, Canada Safety Council
Alison Shannon, Ontario Cycling Association
Bruce Timmermans, Citizens for Safe Cycling, OCA
Bernie Kapalka, Metro Police

Others possibly interested:

Patricia Chertkow, Ministry of Transport and Communciations
Michel Labreque, Velo Quebec

Denise Ashby will serve to direct the efforts of the CCA's Education Committee in co-ordination with the Working Committee. Three members of the CCA Education Committee were at the seminar: Denys Beames, Gerry Pareja and Bill Silvert.

Following is the seminar agenda document and an abridged transcript of the seminar's proceedings.

PURPOSE:

The purpose of this seminar is two-fold: one, to explore briefly current initiatives in cycling education; and two, to explore ways and means of developing improved programs and of co-ordinating and funding such efforts.

OUTCOME:

The desired outcome is expanded networking and communication among the bodies currently concerned with cycling education programs, from cycling education groups to police and safety organizations, as well as the provincial government.

In the long term, it is hoped that this networking could lead to a unified, consistent approach to cycling education in Ontario and across Canada that would be the most cost-effective possible method of teaching people the safe use of the bicycle.

AGENDA:

The session will start with an exploration of initiatives in elementary school cycling education. It will then move to teen and adult cycling education. Finally, a discussion of planned projects, methods of co-ordinating and funding those projects will end the session.

DISCUSSION:

D. Beames: Cycling education involves both the motorist and the cyclist. B. Timmermans has come up with an excellent package for motorists and can send out sample copies when they are available.

B. Timmermans (OCA): We are looking at about 100,000 copies initially. It will be available in both official languages.

D. Beames: We are trying to get people who are knowledgeable to teach cyclists and who agree on the same core body of information. G. Pareja, B. Silvert, D. Beames and D. Ashby are all involved in this effort.

M. Labreque (Velo Quebec): The Quebec government insurance agency, RAAQ, is doing radio and television publicity on bicycle safety. They are also doing a driving course which includes a section on dealing with bicycles.

We have a program covering safety and safe vehicle operation at the Kindergarten to Grade 12 levels. This program is largely in-class. It is supplemented by on-road certification programs conducted after class and sponsored by McDonald's.

There is a college cycling program developed by Velo Quebec. This consists of an eight day leader's program and a twelve day master's program.

Cycling clubs help by offering initiation courses and summer camps.

Dr. J. McInenly (CSC): We have an integrated program on the Kindergarten to Grade 4 levels. The child gets different kinds of exposures at different periods. We have been trying to get various people to advise us on what material should be introduced at the different levels. We have also been trying to get uniform legislation across Canada and to isolate a section on bicycles in the Highway Traffic Act.

M. Labreque: Are you going to revise the old orange program?

J. McInenly: We are going to investigate the feasibility of revising it.

B. Timmermans: How is this material distributed?

J. McInenly: We work with provincial safety leagues.

L. Reilly (New York): Last year my department put together a mini-program for schools. It depends on the personnel in the schools whether the programs are initiated or not.

D. Beames: I have found that there is some room for safety education in the curriculum in Ontario, but there is tremendous pressure to use it for something else. You can only get something if you find people in the schools who are really interested. But the word is that there is a curriculum review in the works and now is the time to act.

B. Timmermans: There is interest in Ontario. We developed kits a few years ago and over half the schools requested them. If there was material the schools would pick it up.

D. Beames: In Toronto I have found that it depends very much on the schools.

N. Vandenburg (Metro Police): We have officers going around to schools. A lot of the officers make up their own programs to address the needs of their specific areas (downtown, suburban). There is also a rodeo.

J. McInenly: How many exposures do you get per year?

N. Vandenburg: There are two times that they see the officers about bicycling.

M. Labreque: Who elaborates your program?

N. Vandenburg: We make up our own stuff based on our experience.

M. Labreque: In Quebec we stopped using the police in the schools. We found that from the point of view of pedagogy and content their program was not ideal. Perhaps it was the wrong thing to do. Now we've brought them back for a safety week program.

D. Crosbie (Chief of Police): In Ontario there is now a program to instruct police officers in how to teach safety in the schools.

B. Fieldhouse (London Bicycle Safety Committee): London has a safety liaison officer in every school. This means all aspects of safety. Our programs get through that liaison. There is a supervisory committee which approves new policies and programs. Approved documents go through immediately. We are now working towards the high-school level -- we have been concentrating on the elementary level in the past. Slides of familiar places in

the city are very effective. We also use a costumed mascot. Teachers like it because they are spoon-fed the material and don't have to do much work with it.

M. Castelyn: I have a program that covers 18 hours over nine meetings. The first meetings are indoors and concern rules of the road. We invite a police officer to speak. By the fifth meeting I start the children on parking lot exercises. They are given questionnaires and theoretical tests. They are required to bring their bicycles and clean and inspect them. Finally they do some bike rodeo exercises and go out on the road. They are supervised by judges placed around the circuit.

D. Beames: Most of the work that is being done now is at the elementary school level. When the kids grow up they either forget what they have learned or choose to forget. We need to get them at a higher level.

G. Pareja (CCA): We are stuck with very few instructors who are not always willing to teach as often as we would like them to. We started off with the Effective Cycling program and set up a small course in the City of Vancouver only. On a regular basis in Vancouver we now have adult cycling programs over the summer months. But this reaches very few. There is also a Cycling Freedom for Women course. This is a lower level course. It is designed to get women to become confident riding in traffic, and to get them roped in enough to enjoying cycling so that they will go out and practice more. It has been going well in Vancouver and in Halifax.

D. Beames: We've got a lot of programs going at various levels. The biggest lack is reaching adults. They are the toughest group to reach and they are also taking to bicycles in increasing numbers. We also need to get together and agree on what should be in the school programs on what levels.

There is a general agreement that this co-ordination is necessary.

M. Labreque: In Quebec we use bicycle trips to trick people into training sessions. Our courses are oriented on bicycle tours and in each of these tours (around eight days) there is time focussed on bike skill. It is very hard to find money to educate adults -- they have to pay for it themselves, but they won't. So we have to disguise the program.

B. Fieldhouse: We also disguise our adult programs as tours. We held a seminar for people and what they wanted to learn was not how to teach safety but how to go touring in Europe. We went along with that and tried to slide in the safety material under the table.

L. Reilly: Adults are definitely one of the weak areas.

J. McInenly: Perhaps we should look more to enforcement and fines as a means of education.

B. Timmermans: We suggested to the bureaucrats that the best way to reduce accidents is to educate the cyclist. So we got some money and some people to take the instructor's course in Effective Cycling. I think the interest is there. People will pay money to learn cycling skills. We will start public instruction in the spring.

D. Beames: We have TV Ontario nibbling on a proposal for a video course for adults. That would require instructors, handbooks, and resource people all the way down the line. It

would be helpful to put more pressure on TV Ontario. In Toronto we are looking at following on the path B. Timmermans started on.

M. Labreque: From my experience developing leadership is certainly the most important thing. But you need to try to make a parallel to the school system.

D. Beames: Here in Ontario the community colleges are especially aggressive in developing these programs.

B. Silvert: One of the major problems is marketing. The CCA isn't set up to have much marketing clout. We have concluded the key is leadership. We need to develop a pyramid so that we can get enough teachers to reach a number of people. When we surveyed courses offered in the schools we were very disappointed with their programs. They were designed by non-cyclists and contained material which most cyclists would agree is incorrect. People need to look closely at Forester's work when they design a course. We reached the conclusion that we needed to develop leadership courses. We set up a general education program.

We have a set of four skills courses, an introductory program, a defensive cycling program like Effective Cycling but modified to cover Canadian weather conditions, an instructor training program, and a masters instructor program. As much as possible we are basing these courses on existing material. We at least want people to know about this stuff before they presume to teach cycling to others.

D. Ashby: If TV Ontario is willing to go ahead with this course we can get D. Beames to work with you and use your course.

D. Beames: If we pull together we can operate more efficiently. We should try to establish a committee of the people who are here who could integrate a program.

General agreement to this. People willing to serve:

CSC CCC CAA	Metro Police
OCA GVF Citizens for Safe Cycling in Ottawa	Velo Ontario
CCA OSL London Safety Council	

P. Curran: At the CAA we do have materials which we make available free of charge. Metro Safety Council is also concerned. Last year we produced posters that were based on the problems we perceived to be dominant here in Toronto. We produced two television spots because of the difficulty of reaching adults.

D. Crosbie agrees to provide police representation on the education committee.

P. Chertkow is unable to say now whether MTC would be interested.

B. Silvert: After you form your group it may fragment because people are interested in different levels.

M. Labreque cannot say now whether Velo Quebec will be involved.

D. Beames: Let me know by the end of February what kind of role you see yourselves being involved in on this committee.

D. Ashby: This committee will only deal with Ontario's program.

D. Beames: Perhaps it can come to serve a larger purpose beyond the Province of Ontario.

T. Dash: Any funds I would advance you would be on the understanding that it will be national and bilingual.

M. Labreque: Have a look at the U.S. Department of Transportation program evaluation kit.

Participant List

Denise Ashby, Canadian Cycling Association
Barbara Barak, Ontario Safety League
Denys Beames, City of Toronto, OCA, CCA
Maria Castelyn
Patricia Chertkow, Ministry of Transportation and Communications
Bill Coffman, City of Toronto Cycling Committee
Doug Crosbie, Ontario Association of Chiefs of Police
Patricia Currar, Canadian Automobile Association
Daniel Gadbois, Velo Ontario
Ted Dash, Gilles Villeneuve Foundation
Lorne Falkenstein, City of Toronto Cycling Committee
Brenda Fieldhouse, London Bicycle Safety Committee
Frank Fogolin, Ontario Cycling Association
John Kenyon, Ontario Traffic Conference
Michel Labreque, Velo Quebec
Dr. Jim McInenly, Canada Safety Council
Gerry Pareja, Canadian Cycling Association
Larry Reilly, City of New York
Alison Shannon, Ontario Cycling Association
Bill Silvert, Canadian Cycling Association
Bruce Timmermans, Ontario Cycling Association
Norm Vandenburg, Metro Police
Inspector Wasylyk, Ontario Provincial Police

APPENDIX A
CONFERENCE ON CYCLING AND THE LAW

PARTICIPANTS

Conference participants attended as individuals and, in their working papers and comments at the Conference itself, were in many cases speaking on their own behalf and not that of their organization.

Ms. Denise Ashby
Director
Recreation and Transportation
Canadian Cycling Association

Mr. Ian Austen
Maclean's Magazine

Mr. Rob Balfour
Solicitor
City of Toronto Legal Department

Ms. Barbara Barak
Ontario Safety League

Mrs. Clare Barry
Bicyclesport Limited

Mr. Mike Barry
Bicyclesport Limited

Mr. Denys Beames
Bicycle Researcher
City of Toronto Planning and Development Department

Mr. Steven Beiko
City of Toronto Cycling Committee

Mr. Steve Benjamin
City of North York Traffic Department

Constable Rick Bodnar
Metropolitan Toronto Police

Mr. Ian Brett
Traffic Management and Engineering Office
Ontario Ministry of Transportation and Communications

Mr. Stephen Brown
City of York Traffic Supervisor

Mr. Andrew Buckstein
City of Toronto Cycling Committee

Mr. Fred Budan
Sunwheel Couriers

Ms. Lise Burcher
Planner
City of Scarborough Urban Design Division

Staff Sergeant Tom Cairns
Hamilton-Wentworth Regional Police

Mr. Bill Cassidy
Guvin Company Limited

Ms. Maria Castelyn
(Elementary Cycling Education)

Mr. Simon Chamberlain
Program Manager
City of Toronto Planning and Development Department

Ms. Patricia Chertkow
Safety Co-ordination and Development Office
Ontario Ministry of Transportation and Communications

Ms. Nina Chyz
Office of Legal Services
Ontario Ministry of Transportation and Communications

Corporal A.J. Cline
Traffic Programs Branch
Ontario Provincial Police

Mr. Peter Coffman
Pedlar Cycles

Mr. William Coffman
City of Toronto Cycling Committee

Mr. Gerry Conetta
City of Toronto Cycling Committee

Mr. Doug Crosbie, Chairman
Traffic Committee
Ontario Association of Chiefs of Police

Ms. Pat Curran
Canadian Automobile Association

Mr. Ted Dash
Executive Director
Gilles Villeneuve Foundation

Mr. Bev Duncan
B. Duncan Marketing (Reflexite)

Mr. Ceri Evans
City of Toronto Cycling Committee

Mr. Lorne Falkenstein
City of Toronto Cycling Committee

Ms. Brenda Fieldhouse
Chairman
London Bicycle Safety Committee

Mr. Terry Fieldhouse
London Bicycle Safety Committee

Mr. Morris Fine
Metropolitan Toronto Planning Department

Ms. Yvonne Finnigan
Guelph Traffic Safety Education Committee

Mr. Frank Fogolin
Program Director
Ontario Cycling Association

Constable Dan Forgan
Hamilton-Wentworth Regional Police

Mr. Stephen Fram
Policy Development Branch
Ontario Ministry of the Attorney General

Mr. Richard A. Fruin
Instructor
Ontario Police College

Mr. Andrea Gabor
City of North York Traffic Department

Mr. Daniel Gadbois
Velo Ontario

Ms. Eve Gilstrof
Executive Director
Ottawa-Carlton Safety Council

Mr. Joachim F. Gottschalck
(cyclist)

Mr. Fred Grakist
Bike Up Canada

Mr. Doug Graves
City of Toronto Cycling Committee

Mr. Donald Gray
City of Toronto Cycling Committee

Mr. Dominic Gulli
City of Etobicoke Traffic and Transportation Division

Mr. Kamlesh G. Gupta, Chief
Mechanical and Electrical Hazards Division
Consumer and Corporate Affairs Canada

Mr. Murray Hattin
Manager
Vehicle Standards Office
Ontario Ministry of Transportation and Communications

Ms. Alexandra Henriques
Velo Ontario

Mr. Terry Holmes
City of Toronto Cycling Committee

Mr. Wayne Hryhoriw
City of Toronto Cycling Committee

Mr. Les Humphries
Ontario Cycling Association

Mr. Peter Hurley
Chairman, OBAC Committee
Ontario Cycling Association

Mr. Ernie Jordison
Norco Products Limited

Sergeant Bernie Kapalka
Metropolitan Toronto Police

Sergeant John Kenyon
Hamilton-Wentworth Regional Police

Mr. Peter Kirkby
Ontario Hydro Research Division (cyclist)

Ms. Linda Kowal
Velo Ontario

Mr. Bart Kreps
The Globe and Mail

Mr. Hans Kuhlmann
Research Division
Metropolitan Toronto Roads and Traffic Department

Mr. Michel Labreque
Velo Quebec

Sergeant Lamoth
Ottawa Police

Alderman Jack Layton, Chairman
City of Toronto Cycling Committee

Mr. Eoin Macdonald
Hamilton Street Railway Company

Inspector Gerry Malcolmsen
Hamilton-Wentworth Regional Police

Mr. Adrian Marples
District Manager
Norco Products Limited

Dr. Jim McCarthy
Canadian Standards Association

Mr. David McCluskey
Bicycle Planner
City of Toronto Planning and Development Department

Ms. Laurel McConnachie
Kingston and District Safety Council

Mr. Ian McGregor, Manager
Toronto Division
Ontario Automobile Association

Dr. R.A. McInenly
Traffic Safety Section
Canada Safety Council

Ms. Peggy McKeon
Driver Education (freelance writer)

Mr. Joseph McNeil

Mr. Ed Mihalcin
Planner
City of Toronto Planning and Development Department

Mr. Fabio Morettin
Cooper Canada

Mrs. Morizet-McDonald
(Pedestrian Representative)

Mr. Jim Morton
City of Etobicoke Traffic and Transportation Division

Mr. Harvey Gib Newman
Kitchener Traffic and Parking Department

Mr. Al Nicholson
City of North York Traffic Department

Mr. David Nobbs
City of Toronto Cycling Committee

Mr. Milton Orris, Dean
Continuing Education Division
Ryerson Polytechnical Institute

Mr. Gerry Pareja
Bicycle Association of British Columbia

Constable Cori Phillips
Peel Regional Police

Mr. Mike Phillips
Bloor Cycle

Mr. Ron Plaunt
Velo Ontario

Mr. Jim Pryer
Transportation Co-ordinator
City of Toronto Public Works Department

Mr. Harold Pym
City of London Police

Mr. Pierre Ranger
City of Toronto Cycling Committee

Mr. Larry Reilly
Bicycle Co-ordinator
New York City Department of Transportation

Mr. Josh Roberts
(cyclist)

Mr. David Sandquist
Bloor Cycle

Ms. Lynne Shadwell
Kingston and District Safety Council

Ms. Alison Shannon
Executive Director
Ontario Cycling Association

Mr. Bill Silvert
Canadian Cycling Association

Inspector Brian Skinner
Ottawa Police

Mr. Arthur Strange
City of Toronto Parks and Recreation Department

Ms. Kate Sutherland
Energy Probe

Ms. Hilda Tiessen
City of Toronto Cycling Committee

Mr. Bruce Timmermans
Ottawa Citizens for Safe Cycling Committee

Mr. Bruce Tisdale
Metro Parks and Property Department

Mr. Thomas W. Troughton
Lawyer
Kingston

Ms. Janice Turner
Toronto Star

Constable Norm Vanderburg
Metropolitan Toronto Police

Mr. Cary Vokes
Raleigh Industries of Canada Limited

Mr. Mike Walton
Cooper Canada

Inspector Norm Wasylyk
Traffic Programs Branch
Ontario Provincial Police

Ms. Deborah Wilkins
Ontario Ministry of the Attorney General

Sergeant D. Yakichuk
Safety Bureau
Peel Regional Police

Mr. Michael T. Yeo
City of Toronto Cycling Committee

Ms. Marion Zimmer
City of Toronto Cycling Committee

REGISTERED PARTICIPANTS WHO WERE UNABLE TO ATTEND*

Mr. Richard Aaron
Toronto Bicycle Network

Sergeant Harry Artinian
Niagara Regional Police

Alderman Gary Bloor
City of York

Mr. Mike Brown
Bicyclesport Limited

Mr. Gerry Conetta
City Cycling Committee

Ms. Pamela Hitchcock
School of Urban and Regional Planning
Ryerson Polytechnical Institute

Mr. Frank Kershaw
Metropolitan Toronto Parks and Property Department

Mr. Bob McDonell
Velosport Inc.

Mr. Kerry Mews
Bicyclesport Limited

Mr. Jim Miele
President
Guvin Company Limited

Mr. Hank Reinders
Velosport Inc.

Mr. Carlos Roderiguez
Personal Lines - Automobile
Royal Insurance of Canada

Ms. Louise Roi
Velo Quebec

Mr. Norm Rubin
Energy Probe

Mr. George Rust-D'Eye
Metropolitan Toronto Solicitor's Department

Mrs. Jean Ryan
Insurance Bureau of Canada

Ms. Cindy Torrison
Norco Products Limited

Mr. Ken Whitwell
Commissioner
City of Scarborough Planning Department

Mr. Wayne Willis
London Bicycle Safety Committee

* Note: In many cases, these individuals were represented at the Conference by alternates.

APPENDIX B

SUMMARY OF KEYNOTE ADDRESSES

This summary is intended to convey the substance and the flavour of the remarks by the guest speakers. It is not intended as a complete text of their addresses.

ALISON SHANNON

Alison Shannon is the Executive Director of the Ontario Cycling Association (OCA), which represents organized cycling in Ontario. Having worked her way up from Program Director to Executive Director in the OCA, Alison has become the focal person around whom the OCA's various concerns revolve: racing, BMX, women's and utilitarian cycling activities. She was therefore in a unique position to supply a provincial perspective to the Conference.

A cyclist herself, Alison has done some racing and commuting. She is qualified both as a race commissaire and as a Level One cycling coach.

Alison began by explaining the role of the Ontario Cycling Association. It is a volunteer non-profit corporation recognized as the cycling sports governing body in Ontario by the Canadian Cycling Association and by the Ontario Ministry of Tourism and Recreation. However, it seeks to promote all types of cycling in Ontario, recreational and utilitarian as well as racing. It has 4500 members in 79 clubs in Ontario.

Alison explained that cycling is an incredibly popular activity in Canada. A 1981 Canada Fitness survey found that one out of every three Canadians rides a bicycle. A Fitness Ontario survey from 1981 showed that 15% of the population of Ontario involved in recreational activities used the bicycle as a recreational activity.

However, in 1982 alone, there were almost 4,000 cycling accidents in Ontario, and the trend is toward an increase in such accidents. The OCA and its membership is concerned about this trend, and about the large number of unskilled cyclists currently on the road. Through its Ontario Bicycle Activities Committee, the OCA is addressing this problem as best it can with the limited resources at its disposal. Education and advocacy are its main concerns.

OCA members are active in the area of bicycling safety in London, through the Bicycle Safety Committee, in Ottawa through the Citizens for Safe Cycling and through a cooperative role with city planners, and in Toronto through the City Cycling Committee.

The OCA itself is interested in working more closely with the above organizations and with others active in the pursuit of improved laws and enforcement related to cycling, and in cycling education.

DR. WILLIAM SILVERT, PH.D.

Dr. Silvert is a marine ecologist at the Bedford Institute of Oceanography in Dartmouth, Nova Scotia. He has cycled for over 40 years and has toured extensively in both North America and Europe. He is also an avid cycling commuter.

Dr. Silvert has been active in bicycling advocacy and education during the past decade at both the provincial and national levels. During the past year he served as Chairman of the Advocacy Committee of the Canadian Cycling Association (CCA) and he is currently a member of both the Advocacy and Education Committees. He is now working on the core module of the Defensive Cycling Program under development by the CCA.

Bill Silvert began by criticizing the organization of the Conference. Though impressed by the specificity of the agenda's topics, he was concerned that the Conference could miss the long view, the basic philosophy of cycling: why we have bicycles on the road in the first place, and what it is we are trying to accomplish.

Silvert called for the Conference to develop a basic philosophy first, so that participants would not be working at cross-purposes.

He noted that the CCA has considered many detailed positions and has come to a central position which makes detailed positions easy to arrive at. Scientists call this the "top-down" approach.

This central position is that the bicycle is a real vehicle and a legitimate means of transportation. That is, citizens have as much right to use a bicycle as any other means of transportation.

He suggested it was imperative that the Conference decide if the bicycle is a serious or frivolous vehicle, or even a play vehicle or toy. This meant it would be desirable for the workshops to discuss basic principles and decide how they would deal with the bicycle.

He noted that if the view of the bicycle as a legitimate vehicle is adopted, there are wide consequences for the regulations of bicycles in general.

For example; if cyclists have a right to the road, then if there is to be equity the "capricious way" in which routes are closed to cyclists must stop. Will there be alternate routes provided, if routes are to be closed?

Mr. Silvert gave the CCA position: "that bicycle law should not be different from motor vehicle law except in cases where it is required." Another body of law just for cyclists would be confusing for both cyclists and motorists and hard to learn.

In fact, given that the same laws, with exceptions, should govern both vehicles, we should be getting rid of superfluous provisions for bicycles.

He noted that the prime candidate for elimination is the provision in the laws of other provinces than Ontario that "the cyclist should ride as far to the right as practicable." "It's superfluous because it doesn't say anything." Unfortunately it is therefore often interpreted as, "as far to the right as possible." There's a big difference. I don't

think cyclists should be forced to make left hand turns from as far to the right as possible. I don't think I should be forced to ride through broken glass and over hazardous drain gratings. I don't think a cyclist should be in a right-hand turn lane when he wants to go straight ahead."

There are laws that do have to take into recognition the special nature of the bicycle. For example, right-turn signals. The recognized left hand signals looks like you are waving to someone. The right arm straight out is obvious. It's the width of the vehicle that gives rise to the special nature of the bicycle.

Another example of this top-down approach, looking at the context and the situation, rather than the details, is the question of riding the wrong way on a one-way street, Mr. Silvert stated.

That is a meaningless question. It depends on the one-way road. Why is there a one-way road there?

In Toronto or any other big city, the core has one-way streets to move high densities of traffic at relatively high speed. There is no room for any vehicle to go the wrong way there.

However, in suburbs, one-way streets exist for an entirely different purpose: to discourage through traffic and lessen the traffic density. But if it's desirable to get bicycles off the major arterials, then you have to exempt them from those restrictions.

But how do we do this legally?. We need a legal enforcement mechanism. Holland has a very simple solution: one sign that says, "Bicycles excepted." If they have a one-way street and they want bicycles to be able to go the wrong way, then they put up the 'No entry', sign and the "Bicycles excepted" sign. We already do this for buses, so we could do it for bicycles.

Mr. Silvert concluded, "Once we have identified the problems, I don't think the solutions will be all that hard."

MICHEL LABREQUE

Michel Labreque is a long-time cyclist who is currently the technical director for Velo Quebec, the Quebec cycling organization dealing with utilitarian cycling. He lives in Montreal.

His responsibilities as Technical Director include cycling education and advocacy. In addition, he is in charge of consumer product testing for Velo Quebec, the organization's magazine. He has written a book on consumer protection for Velo Quebec.

Michel's advocacy work includes a report on traffic law written for the Quebec government that has resulted in the passage of improved cycling-related traffic laws by the provincial government.

Michel has just finished a year's cycling tour of Europe that allowed him to bring a European perspective to the Conference. He has also attended many international cycling conferences.

He holds degrees in Computer Sciences and Physical Education.

Mr. Labreque began by describing his international tour. "I'm just back from one year touring by bicycle in thirteen European and African countries. I attended three bicycling conferences in Europe. So I'm in a 'phase of reflection' about cycling law and cycling safety."

He noted ironically that cyclists always say their own city is the worst in the world for cyclists. He also claimed that, while Montreal is currently the "Mecca" of cycling in Canada recent initiatives in Toronto threaten to put it ahead of Montreal. "And that's good for cycling." it is the fact of improvement that counts, not where it occurs.

Mr. Labreque stated the law dealing with bicycles is an eminently political problem. Five or ten years ago the bicycle seemed to car drivers like a fad. But the bicycle has stayed, it has become a trend that will last, and there are now activist groups who promote the bicycle. Therefore the conflict between car drivers and cyclists won't go away, it will increase, because the number of bicycles on the road will increase.

Finally, he suggested that when we want to deal with the bicycle and the law, there are two aspects to deal with:

- improving the safety of the cyclist and diminishing the number of accidents and injuries;

- putting more cyclists on the road, and improving the pattern of circulation on the road, so that every user of the road is safe.

GERRY PAREJA

Gerry Pareja is a very experienced cyclist residing in Vancouver, B.C. He has cycled extensively in North America and Europe. He has raced and has participated in demanding endurance-type rides. Over the past 15 years he has ridden in every type of traffic condition, over a wide variety of terrain and in many types of weather.

Gerry is the first certified Effective Cycling Instructor in Canada to teach the high-level Effective Cycling Course developed in the U.S. by the League of American Wheelmen. Until recently he was President of the Bicycling Association of British Columbia. He currently serves on the Education and Advocacy committees of the Canadian Cycling Association. He is one of the most knowledgeable cyclists in Canada in all aspects of cycling.

Mr. Pareja described the cycling conditions of Vancouver.

"Generally speaking, Vancouver has a very temperate climate. The rain does restrict some cyclists, but in Vancouver cycling is generally a 12-month activity.

Since the early '70s, although there have been booms and busts in the bicycle retail world, it's only recently that one notices a lot of bicycles on the road, and cyclists who ride year-round. In the past it was simply a matter of sunny Sunday afternoons and put the bike away for the next 6 months.

There has been, then, growth that is cumulative. As a result of that, Vancouver is starting to have a lot of the problems that larger cities are having.

Riding across the city, I notice a lot of problems with the use of the roads. Cyclists in Vancouver are generally dissatisfied with the conditions. As an active cyclist, I think that one of the biggest problems is a lack of law enforcement directed to both cyclists and motorists. Both cyclists and motorists tend to get away with things that they shouldn't do. I see this as partially a result of police indifference.

The police have a large job to do. But when both cyclists and motorists get away with things consistently, then you have disrespect for the law.

We have a situation in Vancouver and other cities of police indifference. You might call it benign neglect. When the laws are not enforced then you have a situation of cyclists being spoiled brats. They do whatever they like because they know they're not going to be stopped.

Rarely do we find police who are aware of the regulations and the concerns of cyclists.

For just about 3 months we had a shutdown of all buses and the seabus to the North Shore. As a result we had a lot of cyclists with limited skills in bike handling, traffic interfacing, applying traffic laws, knowing how to use intersections properly, and so on. There were a lot of inexperienced drivers around too. The result was a lot of minor accidents, and essentially no major ones.

After a month, the police stated they would have an enforcement campaign. The two items they identified as concerns were riding away from the curb and cyclists riding on sidewalks. But generally the cyclist riding away from the curb is the one who has learned that riding by the curb is too hazardous. So the more experienced rider was more likely to be ticketed than the unskilled, unsure, unsteady beginner who was creating a lot of bad press. There were a lot of cyclists riding on the sidewalk. They went too fast and they scared pedestrians, especially the elderly.

These offences are the easiest to see and easiest to catch. The police were enforcing outdated laws that can't be applied literally. But they were not aiming for the ones causing genuine problems, such as riding against traffic, riding without lights at night, not yielding to other traffic and running stop signs at a high rate of speed. And the police didn't make any statement about motorists who are doing things intimidating or dangerous to cyclists, such as opening car doors in the cyclist's face.

We have cases of cyclists hitting cars who violated their right-of-way. In almost every case the cyclist is deemed to be at fault for not stopping. We have a reversal of the fair and natural state of things. Remember, from the cyclist's point of view it is also his or her rights that are being endangered or violated. I urge you not to go toward very strong or very limiting legislation. And when you talk about law enforcement, consider programs to control the behaviour of motorists as well.

Remember this also in programs to encourage motorists to respect cyclists, to think and see cyclists. It's also a matter of "thinking cyclists."

LARRY REILLY

Larry Reilly is the Bicycle Coordinator for the City of New York. As New York's professional bicycle coordinator, Larry works in the Department of Transport's planning office. His work is particularly relevant to City of Toronto concerns. He compiled an extensive study of bicycle licensing and developed a licensing system for commercial bicycle couriers that has recently been implemented.

Larry has also been active in the enforcement area. Since New York now has police officers specifically assigned to enforcement of bicycle-related laws, his comments on enforcement will be valuable.

"It's exciting to see such a diverse range of backgrounds all in the same room dealing with bicycles. I can't think of it ever happening before to my knowledge.

New York City has had various types of bike program since the 1800s. In the late 1800s there was what could be the first comprehensive bicycle program. You had education, with riding schools; you had engineering -- the first bicycle path in the U.S. built in 1895. You had some enforcement, because in the late 1880s you had to have a badge and demonstrate proficiency before the police would let you ride in the streets.

You need a comprehensive program. No one element, facilities, education or enforcement, is the complete answer. In the early '70s my department studied a range of comprehensive bicycle issues. Three of them are applicable here:

- in enforcement of traffic regulations, the recommendation was to strengthen the program;

- on the issue of education and safety programs, the recommendation was to expand the program;

- on the issue of licensing bikes and their riders the conclusion was "marginal impact, great institutional difficulties."

In 1978 we striped several four-foot bicycle lanes through mid-town Manhattan. And they've been pretty successful. In the first four years of use there's been a 75% increase in bicycle volumes.

We too had a transit strike, in 1980, and the numbers of cyclists went up to 250,000 a day. Three pedestrians died. The Mayor asked my department and the police to look into registering bicycles as a way of improving bicycle safety on the street. Our major conclusion was that this would have little impact, if any, on improving cyclist behaviour. Instead we should emphasize education and enforcement programs, which have proven their effectiveness in modifying bicyclist behaviour.

A small town, Cranford, N.J., has a wonderful program and their bicycle accidents have gone way down. But they also have a total education program. Every police car has a bike rack on the back. In fast food restaurants there are bicycle safety place mats. But that's a small town.

In 1980 we started a bicycle education program with a $150,000, two-year federal grant. The objective was to reduce cycling accidents. The program included a media campaign and a community outreach program. We also started an enforcement program with four priorities: riding against traffic, disobeying traffic lights, riding on the sidewalk and failing to yield to a pedestrian. Those have remained our four priorities to this date.

The police set up a detailed cycling offense and accident reporting procedure. There was a police training videotape made and shown to all 23,000 officers.

There is a state law that there should be safety issues taught from Kindergarden to Grade 12. It's not always done. We developed with the Board of Education a mini-traffic safety course last year.

We're evaluating a state prototypical program weaving bicycle education into the school curriculum. It tested out in several schools very well.

The State appointed a Bicycle Safety Advisory Committee. Recommendations were made to the Commissioner of the Department of Motor Vehicles regarding legislation and last year a recommendation was accepted by the legislature.

The driver's manual has been revised as far as its bicycle content; so has the driver's exam.

Our current efforts are aimed at the individual officers on the street. If someone refuses to provide acceptable identification, the bicycle goes in the police car trunk and down to the station.

Have we made a difference? Yes. In 1980 there were over 800,000 moving violations cited by the police. In 1983 it was up to almost 1,400,000, a 64% increase. The bike summonses, 6200 issued in two and a half years. A comparison of the first eight months of 1983 and 1984 shows a 266% increase in enforcement numbers.

The real impact, of course, is how many lives have we saved. General enforcment, 1980, 619 killed. 1983, 493 - a 20% drop. Bicyclists killed: 1980, 15. 1983, 12, a 20% drop. We have about 6100 miles of street in the City, and about 100,000 traffic accidents a year.

And there are about 13,000 pedestrians hit by cars and about 400 to 500 pedestrians hit by cyclists each year. Out of all the categories, only pedestrian-cyclist accidents are increasing. This could be better awareness or better reporting. Meanwhile, traffic volumes are way up. Bicycle volumes have gone up 42% since 1980.

Sine 1982 there has been a growing outcry against commercially used bicycles. In January 1983, the City Council proposed four regulations: one, that the Department of Transportation should license all the bikes in the City, about 2.5 million bikes; second, that the police department should register all the bikes; third, that my department should license all cyclists after an eye exam and a written exam; and fourth, that all commercial bikes should be licensed by the police.

We researched the commercial bicycle problem. A bill was passed. The regulation requires that the company name and a three digit I.D. number go on the back of every courier, and be visible ten feet away. The sign goes on the bicycle too. The company must maintain

trip sheets. They have to submit an annual report to the police commissioner. The bicycle operator faces a $25 - $50 fine for failing to carry the sign. All other fines are against the company. This is a one-year test program for the city."

APPENDIX C

TORONTO BICYCLE ACCIDENT STATISTICS:

A SUMMARY OF DATA FROM POLICE-REPORTED ACCIDENTS, 1980-1983

CYCLISTS AND PASSENGERS INVOLVED IN ACCIDENTS

PERSON INVOLVED

INVOLVED	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
CYCLIST	3210	98.9	3210	98.9
CYCLIST PASSENGE	37	1.1	3247	100.0

YEAR OF ACCIDENT

YEAR	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
1980	756	23.3	756	23.3
1981	766	23.6	1522	46.9
1982	852	26.2	2374	73.1
1983	873	26.9	3247	100.0

AGE GROUP OF PERSON INVOLVED

AGE_INVL	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
UNKNOWN (HIT & R	122	3.8	122	3.8
0 - 4 YEARS	15	0.5	137	4.2
5 - 9 YEARS	200	6.2	337	10.4
10 - 14 YEARS	443	13.6	780	24.0
15 - 19 YEARS	722	22.2	1502	46.3
20 - 24 YEARS	694	21.4	2196	67.6
25 - 34 YEARS	705	21.7	2901	89.3
35 - 44 YEARS	180	5.5	3081	94.9
45 - 54 YEARS	86	2.6	3167	97.5
55 - 64 YEARS	54	1.7	3221	99.2
65 AND OVER	26	0.8	3247	100.0

CYCLISTS AND PASSENGERS INVOLVED IN ACCIDENTS

TABLE OF INJURIES BY AGE_INVL

INJURIES DEGREE OF INJURIES AGE_INVL AGE GROUP OF PERSON INVOLVED

FREQUENCY / PERCENT / ROW PCT / COL PCT	UNKNOWN (HIT & R	0 - 4 YEARS	5 - 9 YEARS	10 - 14 YEARS	15 - 19 YEARS	20 - 24 YEARS	25 - 34 YEARS	35 - 44 YEARS	45 - 54 YEARS	55 - 64 YEARS	65 AND OVER	TOTAL
NONE	121	3	12	45	86	56	65	13	4	0	[illegible]	405
	3.73	0.09	0.37	1.39	2.65	1.72	2.00	0.40	0.12	0.00	[illegible]	12.47
	29.88	0.74	2.96	11.11	21.23	13.83	16.05	3.21	0.99	0.00	0.00	
	99.18	20.00	6.00	10.16	11.91	8.07	9.22	7.22	4.65	0.00	0.00	
MINIMAL	0	3	91	200	317	302	304	70	36	26	9	1358
	0.00	0.09	2.80	6.16	9.76	9.30	9.36	2.16	1.11	0.80	0.28	41.82
	0.00	0.22	6.70	14.73	23.34	22.24	22.39	5.15	2.65	1.91	0.66	
	0.00	20.00	45.50	45.15	43.91	43.52	43.12	38.89	41.86	48.15	34.62	
MINOR	1	9	82	176	292	301	305	89	42	23	13	1333
	0.03	0.28	2.53	5.42	8.99	9.27	9.39	2.74	1.29	0.71	0.40	41.05
	0.08	0.68	6.15	13.20	21.91	22.58	22.88	6.68	3.15	1.73	0.98	
	0.82	60.00	41.00	39.73	40.44	43.37	43.26	49.44	48.84	42.59	50.00	
MAJOR	0	0	15	20	26	35	30	8	4	4	4	146
	0.00	0.00	0.46	0.62	0.80	1.08	0.92	0.25	0.12	0.12	0.12	4.50
	0.00	0.00	10.27	13.70	17.81	23.97	20.55	5.48	2.74	2.74	2.74	
	0.00	0.00	7.50	4.51	3.60	5.04	4.26	4.44	4.65	7.41	15.38	
FATAL	0	0	0	2	1	0	1	0	0	1	0	5
	0.00	0.00	0.00	0.06	0.03	0.00	0.03	0.00	0.00	0.03	0.00	0.15
	0.00	0.00	0.00	40.00	20.00	0.00	20.00	0.00	0.00	20.00	0.00	
	0.00	0.00	0.00	0.45	0.14	0.00	0.14	0.00	0.00	1.85	0.00	
TOTAL	122	15	200	443	722	694	705	180	86	54	26	3247
	3.76	0.46	6.16	13.64	22.24	21.37	21.71	5.54	2.65	1.66	0.80	100.00

CYCLISTS AND PASSENGERS INVOLVED IN ACCIDENTS

TABLE 1 OF YEAR BY AGE_INVL
CONTROLLING FOR INVOLVED=CYCLIST

YEAR YEAR OF ACCIDENT AGE_INVL AGE GROUP OF PERSON INVOLVED

YEAR FREQUENCY PERCENT ROW PCT COL PCT	UNKNOWN (HIT & R	0 - 4 YEARS	5 - 9 YEARS	10 - 14 YEARS	15 - 19 YEARS	20 - 24 YEARS	25 - 34 YEARS	35 - 44 YEARS	45 - 54 YEARS	55 - 64 YEARS	65 AND OVER	TOTAL
1980	28 0.87 3.73 22.95	2 0.06 0.27 28.57	33 1.03 4.40 17.55	149 4.64 19.87 34.33	178 5.55 23.73 24.79	128 3.99 17.07 18.47	152 4.74 20.27 21.59	36 1.12 4.80 20.22	20 0.62 2.67 23.26	16 0.50 2.13 29.63	8 0.25 1.07 30.77	750 23.36
1981	45 1.40 5.97 36.89	1 0.03 0.13 14.29	52 1.62 6.90 27.66	95 2.96 12.60 21.89	165 5.14 21.88 22.98	155 4.83 20.56 22.37	159 4.95 21.09 22.59	38 1.18 5.04 21.35	27 0.84 3.58 31.40	10 0.31 1.33 18.52	7 0.22 0.93 26.92	754 23.49
1982	29 0.90 3.44 23.77	2 0.06 0.24 28.57	53 1.65 6.29 28.19	102 3.18 12.11 23.50	184 5.73 21.85 25.63	200 6.23 23.75 28.86	187 5.83 22.21 26.56	53 1.65 6.29 29.78	14 0.44 1.66 16.28	15 0.47 1.78 27.78	3 0.09 0.36 11.54	842 26.23
1983	20 0.62 2.31 16.39	2 0.06 0.23 28.57	50 1.56 5.79 26.60	88 2.74 10.19 20.28	191 5.95 22.11 26.60	210 6.54 24.31 30.30	206 6.42 23.84 29.26	51 1.59 5.90 28.65	25 0.78 2.89 29.07	13 0.40 1.50 24.07	8 0.25 0.93 30.77	864 26.92
TOTAL	122 3.80	7 0.22	188 5.86	434 13.52	718 22.37	693 21.59	704 21.93	178 5.55	86 2.68	54 1.68	26 0.81	3210 100.00

CYCLISTS AND PASSENGERS INVOLVED IN ACCIDENTS

TABLE 2 OF YEAR BY AGE_INVL
CONTROLLING FOR INVOLVED=CYCLIST PASSENGE

YEAR YEAR OF ACCIDENT AGE_INVL AGE GROUP OF PERSON INVOLVED

YEAR	FREQUENCY / PERCENT / ROW PCT / COL PCT	UNKNOWN (HIT & R	0 - 4 YEARS	5 - 9 YEARS	10 - 14 YEARS	15 - 19 YEARS	20 - 24 YEARS	25 - 34 YEARS	35 - 44 YEARS	45 - 54 YEARS	55 - 64 YEARS	65 AND OVER	TOTAL
1980		0	0	1	4	1	0	0	0	0	0	0	6
		0.00	0.00	2.70	10.81	2.70	0.00	0.00	0.00	0.00	0.00	0.00	16.22
		0.00	0.00	16.67	66.67	16.67	0.00	0.00	0.00	0.00	0.00	0.00	
		.	0.00	8.33	44.44	25.00	0.00	0.00	0.00	.	.	.	
1981		0	2	4	2	2	0	1	1	0	0	0	12
		0.00	5.41	10.81	5.41	5.41	0.00	2.70	2.70	0.00	0.00	0.00	32.43
		0.00	16.67	33.33	16.67	16.67	0.00	8.33	8.33	0.00	0.00	0.00	
		.	25.00	33.33	22.22	50.00	0.00	100.00	50.00	.	.	.	
1982		0	5	4	1	0	0	0	0	0	0	0	10
		0.00	13.51	10.81	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.03
		0.00	50.00	40.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		.	62.50	33.33	11.11	0.00	0.00	0.00	0.00	.	.	.	
1983		0	1	3	2	1	1	0	1	0	0	0	9
		0.00	2.70	8.11	5.41	2.70	2.70	0.00	2.70	0.00	0.00	0.00	24.32
		0.00	11.11	33.33	22.22	11.11	11.11	0.00	11.11	0.00	0.00	0.00	
		.	12.50	25.00	22.22	25.00	100.00	0.00	50.00	.	.	.	
TOTAL		0	8	12	9	4	1	1	2	0	0	0	37
		0.00	21.62	32.43	24.32	10.81	2.70	2.70	5.41	0.00	0.00	0.00	100.00

CYCLISTS AND PASSENGERS INVOLVED IN ACCIDENTS

TABLE 1 OF YEAR BY SEX_INVL
CONTROLLING FOR INVOLVED=CYCLIST

YEAR YEAR OF ACCIDENT SEX_INVL SEX OF PERSON INVOLVED

FREQUENCY / PERCENT / ROW PCT / COL PCT	MALE	FEMALE	UNKNOWN	TOTAL
1980	562	160	28	750
	17.51	4.98	0.87	23.36
	74.93	21.33	3.73	
	24.20	20.89	22.95	
1981	537	172	45	754
	16.73	5.36	1.40	23.49
	71.22	22.81	5.97	
	23.13	22.45	36.89	
1982	608	205	29	842
	18.94	6.39	0.90	26.23
	72.21	24.35	3.44	
	26.18	26.76	23.77	
1983	615	229	20	864
	19.16	7.13	0.62	26.92
	71.18	26.50	2.31	
	26.49	29.90	16.39	
TOTAL	2322	766	122	3210
	72.34	23.86	3.80	100.00

CYCLISTS AND PASSENGERS INVOLVED IN ACCIDENTS

TABLE 2 OF YEAR BY SEX_INVL
CONTROLLING FOR INVOLVED=CYCLIST PASSENGE

YEAR YEAR OF ACCIDENT SEX_INVL SEX OF PERSON INVOLVED

FREQUENCY PERCENT ROW PCT COL PCT	MALE	FEMALE	UNKNOWN	TOTAL
1980	4 10.81 66.67 16.00	2 5.41 33.33 16.67	0 0.00 0.00 .	6 16.22
1981	10 27.03 83.33 40.00	2 5.41 16.67 16.67	0 0.00 0.00 .	12 32.43
1982	6 16.22 60.00 24.00	4 10.81 40.00 33.33	0 0.00 0.00 .	10 27.03
1983	5 13.51 55.56 20.00	4 10.81 44.44 33.33	0 0.00 0.00 .	9 24.32
TOTAL	25 67.57	12 32.43	0 0.00	37 100.00

THE ACCIDENTS INVOLVING CYCLISTS ONLY

YEAR OF ACCIDENT

YEAR	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
1980	734	23.3	734	23.3
1981	741	23.5	1475	46.8
1982	827	26.2	2302	73.0
1983	853	27.0	3155	100.0

TRAFFIC CONTROL SYSTEM

TRFCCNTL	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	1	.	.	.
TRAFFIC SIGNAL	640	20.3	640	20.3
STOP SIGN	368	11.7	1008	32.0
YIELD OR MERGE S	7	0.2	1015	32.2
PEDESTRIAN CROSS	46	1.5	1061	33.6
POLICE CONTROL	3	0.1	1064	33.7
SCHOOL GUARD	1	0.0	1065	33.8
SCHOOL BUS (WITH	2	0.1	1067	33.8
NO CONTROL	2076	65.8	3143	99.7
OTHER	11	0.3	3154	100.0

LOCATION CO-ORDINATE

LOC_CORD	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	49	.	.	.
AT INTERSECTION	1666	53.6	1666	53.6
MID-BLOCK	1440	46.4	3106	100.0

THE ACCIDENTS INVOLVING CYCLISTS ONLY

TABLE OF YEAR BY TRFCCNTL

YEAR YEAR OF ACCIDENT TRFCCNTL TRAFFIC CONTROL SYSTEM

FREQUENCY / PERCENT / ROW PCT / COL PCT	TRAFFIC SIGNAL	STOP SIGN	YIELD OR MERGE S	PEDESTRIAN CROSS	POLICE CONTROL	SCHOOL GUARD	SCHOOL BUS (WITH	NO CONTROL	OTHER	TOTAL
1980	153	83	2	11	1	0	0	483	0	733
	4.85	2.63	0.06	0.35	0.03	0.00	0.00	15.31	0.00	23.24
	20.87	11.32	0.27	1.50	0.14	0.00	0.00	65.89	0.00	
	23.91	22.55	28.57	23.91	33.33	0.00	0.00	23.27	0.00	
1981	134	103	0	16	0	1	1	484	2	741
	4.25	3.27	0.00	0.51	0.00	0.03	0.03	15.35	0.06	23.49
	18.08	13.90	0.00	2.16	0.00	0.13	0.13	65.32	0.27	
	20.94	27.99	0.00	34.78	0.00	100.00	50.00	23.31	18.18	
1982	169	88	3	10	0	0	1	550	6	827
	5.36	2.79	0.10	0.32	0.00	0.00	0.03	17.44	0.19	26.22
	20.44	10.64	0.36	1.21	0.00	0.00	0.12	66.51	0.73	
	26.41	23.91	42.86	21.74	0.00	0.00	50.00	26.49	54.55	
1983	184	94	2	9	2	0	0	559	3	853
	5.83	2.98	0.06	0.29	0.06	0.00	0.00	17.72	0.10	27.05
	21.57	11.02	0.23	1.06	0.23	0.00	0.00	65.53	0.35	
	28.75	25.54	28.57	19.57	66.67	0.00	0.00	26.93	27.27	
TOTAL	640	368	7	46	3	1	2	2076	11	3154
	20.29	11.67	0.22	1.46	0.10	0.03	0.06	65.82	0.35	100.00

FREQUENCY MISSING = 1

THE ACCIDENTS INVOLVING CYCLISTS ONLY

TABLE 1 OF YEAR BY TRFCCNTL
CONTROLLING FOR LOC_CORD=AT INTERSECTION

YEAR YEAR OF ACCIDENT TRFCCNTL TRAFFIC CONTROL SYSTEM

FREQUENCY / PERCENT / ROW PCT / COL PCT	TRAFFIC SIGNAL	STOP SIGN	YIELD OR MERGE S	PEDESTRIAN CROSS	POLICE CONTROL	SCHOOL GUARD	SCHOOL BUS (WITH	NO CONTROL	OTHER	TOTAL
1980	147	82	2	11	0	0	0	151	0	393
	8.82	4.92	0.12	0.66	0.00	0.00	0.00	9.06	0.00	23.59
	37.40	20.87	0.51	2.80	0.00	0.00	0.00	38.42	0.00	
	24.46	22.78	33.33	25.58	0.00	0.00	.	23.27	0.00	
1981	119	97	0	14	0	1	0	141	2	374
	7.14	5.82	0.00	0.84	0.00	0.06	0.00	8.46	0.12	22.45
	31.82	25.94	0.00	3.74	0.00	0.27	0.00	37.70	0.53	
	19.80	25.94	0.00	32.56	0.00	100.00	.	21.73	50.00	
1982	159	87	2	10	0	0	0	166	0	424
	9.54	5.22	0.12	0.60	0.00	0.00	0.00	9.96	0.00	25.45
	37.50	20.52	0.47	2.36	0.00	0.00	0.00	39.15	0.00	
	26.46	24.17	33.33	23.26	0.00	0.00	.	25.58	0.00	
1983	176	94	2	8	2	0	0	191	2	475
	10.56	5.64	0.12	0.48	0.12	0.00	0.00	11.46	0.12	28.51
	37.05	19.79	0.42	1.68	0.42	0.00	0.00	40.21	0.42	
	29.28	26.11	33.33	18.60	100.00	0.00	.	29.43	50.00	
TOTAL	601	360	6	43	2	1	0	649	4	1666
	36.07	21.61	0.36	2.58	0.12	0.06	0.00	38.96	0.24	100.00

THE ACCIDENTS INVOLVING CYCLISTS ONLY

TABLE 2 OF YEAR BY TRFCCNTL
CONTROLLING FOR LOC_CORD=MID-BLOCK

YEAR YEAR OF ACCIDENT TRFCCNTL TRAFFIC CONTROL SYSTEM

FREQUENCY / PERCENT / ROW PCT / COL PCT	TRAFFIC SIGNAL	STOP SIGN	YIELD OR MERGE S	PEDESTRIAN CROSS	POLICE CONTROL	SCHOOL GUARD	SCHOOL BUS (WITH	NO CONTROL	OTHER	TOTAL
1980	6	0	0	0	1	0	0	317	0	324
	0.42	0.00	0.00	0.00	0.07	0.00	0.00	22.03	0.00	22.52
	1.85	0.00	0.00	0.00	0.31	0.00	0.00	97.84	0.00	
	15.38	0.00	0.00	0.00	100.00		0.00	22.97	0.00	
1981	15	5	0	2	0	0	1	334	0	357
	1.04	0.35	0.00	0.14	0.00	0.00	0.07	23.21	0.00	24.81
	4.20	1.40	0.00	0.56	0.00	0.00	0.28	93.56	0.00	
	38.46	83.33	0.00	66.67	0.00		50.00	24.20	0.00	
1982	10	1	1	0	0	0	1	374	6	393
	0.69	0.07	0.07	0.00	0.00	0.00	0.07	25.99	0.42	27.31
	2.54	0.25	0.25	0.00	0.00	0.00	0.25	95.17	1.53	
	25.64	16.67	100.00	0.00	0.00		50.00	27.10	85.71	
1983	8	0	0	1	0	0	0	355	1	365
	0.56	0.00	0.00	0.07	0.00	0.00	0.00	24.67	0.07	25.36
	2.19	0.00	0.00	0.27	0.00	0.00	0.00	97.26	0.27	
	20.51	0.00	0.00	33.33	0.00		0.00	25.72	14.29	
TOTAL	39	6	1	3	1	0	2	1380	7	1439
	2.71	0.42	0.07	0.21	0.07	0.00	0.14	95.90	0.49	100.00

FREQUENCY MISSING = 1

PRIMARY IMPACT TYPE

INITIAL IMPACT TYPE

I_IMPACT	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	132			
INVOLVED INDIREC	83	2.7	83	2.7
REAR END	165	5.5	248	8.2
ANGLE	1384	45.8	1632	54.0
TURNING MOVEMENT	400	13.2	2032	67.2
SIDESWIPE	472	15.6	2504	82.8
APPROACHING	387	12.8	2891	95.6
OTHER	127	4.2	3018	99.8
ROLLOVER	1	0.0	3019	99.9
BACK INTO OTHER	4	0.1	3023	100.0

PRIMARY IMPACT TYPE

TABLE OF YEAR BY I_IMPACT

YEAR YEAR OF ACCIDENT I_IMPACT INITIAL IMPACT TYPE

FREQUENCY PERCENT ROW PCT COL PCT	INVOLVED INDIREC	REAR END	ANGLE	TURNING MOVEMENT	SIDESWIPE	APPROACHING	OTHER	ROLLOVER	BACK INTO OTHER	TOTAL
1980	10	46	394	85	102	44	2	0	0	683
	0.33	1.52	13.03	2.81	3.37	1.46	0.07	0.00	0.00	22.59
	1.46	6.73	57.69	12.45	14.93	6.44	0.29	0.00	0.00	
	12.05	27.88	28.47	21.25	21.61	11.37	1.57	0.00	0.00	
1981	34	32	322	88	109	97	38	0	0	720
	1.12	1.06	10.65	2.91	3.61	3.21	1.26	0.00	0.00	23.82
	4.72	4.44	44.72	12.22	15.14	13.47	5.28	0.00	0.00	
	40.96	19.39	23.27	22.00	23.09	25.06	29.92	0.00	0.00	
1982	21	43	327	108	120	133	40	0	4	796
	0.69	1.42	10.82	3.57	3.97	4.40	1.32	0.00	0.13	26.33
	2.64	5.40	41.08	13.57	15.08	16.71	5.03	0.00	0.50	
	25.30	26.06	23.63	27.00	25.42	34.37	31.50	0.00	100.00	
1983	18	44	341	119	141	113	47	1	0	824
	0.60	1.46	11.28	3.94	4.66	3.74	1.55	0.03	0.00	27.26
	2.18	5.34	41.38	14.44	17.11	13.71	5.70	0.12	0.00	
	21.69	26.67	24.64	29.75	29.87	29.20	37.01	100.00	0.00	
TOTAL	83	165	1384	400	472	387	127	1	4	3023
	2.75	5.46	45.78	13.23	15.61	12.80	4.20	0.03	0.13	100.00

FREQUENCY MISSING = 132

PRIMARY IMPACT TYPE

TABLE 1 OF YEAR BY I_IMPACT
CONTROLLING FOR LOC_CORD=AT INTERSECTION

YEAR YEAR OF ACCIDENT I_IMPACT INITIAL IMPACT TYPE

FREQUENCY / PERCENT / ROW PCT / COL PCT	INVOLVED INDIREC	REAR END	ANGLE	TURNING MOVEMENT	SIDESWIPE	APPROACHING	OTHER	ROLLOVER	BACK INTO OTHER	TOTAL
1980	4	17	228	66	35	23	0	0	0	373
	0.25	1.05	14.09	4.08	2.16	1.42	0.00	0.00	0.00	23.05
	1.07	4.56	61.13	17.69	9.38	6.17	0.00	0.00	0.00	
	9.76	22.97	29.16	21.36	20.71	12.04	0.00	0.00	.	
1981	15	15	180	68	33	47	11	0	0	369
	0.93	0.93	11.12	4.20	2.04	2.90	0.68	0.00	0.00	22.81
	4.07	4.07	48.78	18.43	8.94	12.74	2.98	0.00	0.00	
	36.59	20.27	23.02	22.01	19.53	24.61	21.57	0.00	.	
1982	12	21	179	79	43	61	17	0	0	412
	0.74	1.30	11.06	4.88	2.66	3.77	1.05	0.00	0.00	25.46
	2.91	5.10	43.45	19.17	10.44	14.81	4.13	0.00	0.00	
	29.27	28.38	22.89	25.57	25.44	31.94	33.33	0.00	.	
1983	10	21	195	96	58	60	23	1	0	464
	0.62	1.30	12.05	5.93	3.58	3.71	1.42	0.06	0.00	28.68
	2.16	4.53	42.03	20.69	12.50	12.93	4.96	0.22	0.00	
	24.39	28.38	24.94	31.07	34.32	31.41	45.10	100.00	.	
TOTAL	41	74	782	309	169	191	51	1	0	1618
	2.53	4.57	48.33	19.10	10.44	11.80	3.15	0.06	0.00	100.00

FREQUENCY MISSING = 48

PRIMARY IMPACT TYPE

TABLE 2 OF YEAR BY I_IMPACT
CONTROLLING FOR LOC_CORD=MID-BLOCK

YEAR YEAR OF ACCIDENT I_IMPACT INITIAL IMPACT TYPE

FREQUENCY / PERCENT / ROW PCT / COL PCT	INVOLVED INDIREC	REAR END	ANGLE	TURNING MOVEMENT	SIDESWIPE	APPROACHING	OTHER	ROLLOVER	BACK INTO OTHER	TOTAL
1980	6	27	154	19	67	19	2	0	0	294
	0.44	1.99	11.36	1.40	4.94	1.40	0.15	0.00	0.00	21.68
	2.04	9.18	52.38	6.46	22.79	6.46	0.68	0.00	0.00	
	14.63	30.68	26.78	21.35	22.26	10.38	2.67	.	0.00	
1981	18	17	138	20	76	46	26	0	0	341
	1.33	1.25	10.18	1.47	5.60	3.39	1.92	0.00	0.00	25.15
	5.28	4.99	40.47	5.87	22.29	13.49	7.62	0.00	0.00	
	43.90	19.32	24.00	22.47	25.25	25.14	34.67	.	0.00	
1982	9	21	144	29	76	68	23	0	4	374
	0.66	1.55	10.62	2.14	5.60	5.01	1.70	0.00	0.29	27.58
	2.41	5.61	38.50	7.75	20.32	18.18	6.15	0.00	1.07	
	21.95	23.86	25.04	32.58	25.25	37.16	30.67	.	100.00	
1983	8	23	139	21	82	50	24	0	0	347
	0.59	1.70	10.25	1.55	6.05	3.69	1.77	0.00	0.00	25.59
	2.31	6.63	40.06	6.05	23.63	14.41	6.92	0.00	0.00	
	19.51	26.14	24.17	23.60	27.24	27.32	32.00	.	0.00	
TOTAL	41	88	575	89	301	183	75	0	4	1356
	3.02	6.49	42.40	6.56	22.20	13.50	5.53	0.00	0.29	100.00

FREQUENCY MISSING = 84

ALL ACCIDENTS

TYPE OF COLLISION

COLLIDE	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
BIKE/MOTOR VEH	2279	72.2	2279	72.2
BIKE/PEDESTRIAN	176	5.6	2455	77.8
BIKE/BIKE	48	1.5	2503	79.3
CYCLIST ALONE	435	13.8	2938	93.1
OTHER	217	6.9	3155	100.0

ALL ACCIDENTS

TABLE OF YEAR BY COLLIDE

YEAR YEAR OF ACCIDENT COLLIDE TYPE OF COLLISION

FREQUENCY / PERCENT / ROW PCT / COL PCT	BIKE/MOTOR VEH	BIKE/PEDESTRIAN	BIKE/BIKE	CYCLIST ALONE	OTHER	TOTAL
1980	517	41	13	97	66	734
	16.39	1.30	0.41	3.07	2.09	23.26
	70.44	5.59	1.77	13.22	8.99	
	22.69	23.30	27.08	22.30	30.41	
1981	533	39	14	100	55	741
	16.89	1.24	0.44	3.17	1.74	23.49
	71.93	5.26	1.89	13.50	7.42	
	23.39	22.16	29.17	22.99	25.35	
1982	599	58	12	110	48	827
	18.99	1.84	0.38	3.49	1.52	26.21
	72.43	7.01	1.45	13.30	5.80	
	26.28	32.95	25.00	25.29	22.12	
1983	630	38	9	128	48	853
	19.97	1.20	0.29	4.06	1.52	27.04
	73.86	4.45	1.06	15.01	5.63	
	27.64	21.59	18.75	29.43	22.12	
TOTAL	2279	176	48	435	217	3155
	72.23	5.58	1.52	13.79	6.88	100.00

ALL ACCIDENTS

TABLE 1 OF YEAR BY COLLIDE
CONTROLLING FOR LOC_CORD=AT INTERSECTION

YEAR YEAR OF ACCIDENT COLLIDE TYPE OF COLLISION

FREQUENCY / PERCENT / ROW PCT / COL PCT	BIKE/MOTOR VEH	BIKE/PEDESTRIAN	BIKE/BIKE	CYCLIST ALONE	OTHER	TOTAL
1980	293	15	6	34	45	393
	17.59	0.90	0.36	2.04	2.70	23.59
	74.55	3.82	1.53	8.65	11.45	
	22.57	19.23	37.50	23.61	34.62	
1981	295	17	2	28	32	374
	17.71	1.02	0.12	1.68	1.92	22.45
	78.88	4.55	0.53	7.49	8.56	
	22.73	21.79	12.50	19.44	24.62	
1982	334	28	3	36	23	424
	20.05	1.68	0.18	2.16	1.38	25.45
	78.77	6.60	0.71	8.49	5.42	
	25.73	35.90	18.75	25.00	17.69	
1983	376	18	5	46	30	475
	22.57	1.08	0.30	2.76	1.80	28.51
	79.16	3.79	1.05	9.68	6.32	
	28.97	23.08	31.25	31.94	23.08	
TOTAL	1298	78	16	144	130	1666
	77.91	4.68	0.96	8.64	7.80	100.00

ALL ACCIDENTS

TABLE 2 OF YEAR BY COLLIDE
CONTROLLING FOR LOC_CORD=MID-BLOCK

YEAR YEAR OF ACCIDENT COLLIDE TYPE OF COLLISION

YEAR FREQUENCY PERCENT ROW PCT COL PCT	BIKE/MOTOR VEH	BIKE/PEDESTRIAN	BIKE/BIKE	CYCLIST ALONE	OTHER	TOTAL
1980	221 15.35 68.00 23.04	19 1.32 5.85 22.09	6 0.42 1.85 20.00	60 4.17 18.46 20.98	19 1.32 5.85 24.05	325 22.57
1981	233 16.18 65.27 24.30	19 1.32 5.32 22.09	11 0.76 3.08 36.67	71 4.93 19.89 24.83	23 1.60 6.44 29.11	357 24.79
1982	260 18.06 66.16 27.11	28 1.94 7.12 32.56	9 0.63 2.29 30.00	74 5.14 18.83 25.87	22 1.53 5.60 27.85	393 27.29
1983	245 17.01 67.12 25.55	20 1.39 5.48 23.26	4 0.28 1.10 13.33	81 5.63 22.19 28.32	15 1.04 4.11 18.99	365 25.35
TOTAL	959 66.60	86 5.97	30 2.08	286 19.86	79 5.49	1440 100.00

TABLE OF INJURIES BY AGE_INVL

INJURIES DEGREE OF INJURIES AGE_INVL AGE GROUP OF PERSON INVOLVED

FREQUENCY / PERCENT / ROW PCT / COL PCT	UNKNOWN (HIT & R	0 - 4 YEARS	5 - 9 YEARS	10 - 14 YEARS	15 - 19 YEARS	20 - 24 YEARS	25 - 34 YEARS	35 - 44 YEARS	45 - 54 YEARS	55 - 64 YEARS	65 AND OVER	TOTAL
NONE	69	1	5	19	33	26	39	8	1	0	0	201
	2.98	0.04	0.22	0.82	1.42	1.12	1.68	0.35	0.04	0.00	0.00	8.68
	34.33	0.50	2.49	9.45	16.42	12.94	19.40	3.98	0.50	0.00	0.00	
	98.57	8.33	3.14	5.97	6.48	5.23	7.68	6.20	1.75	0.00	0.00	
MINIMAL	0	3	80	163	253	241	243	56	27	22	8	1096
	0.00	0.13	3.45	7.03	10.92	10.40	10.49	2.42	1.17	0.95	0.35	47.30
	0.00	0.27	7.30	14.87	23.08	21.99	22.17	5.11	2.46	2.01	0.73	
	0.00	25.00	50.31	51.26	49.71	48.49	47.83	43.41	47.37	55.00	44.44	
MINOR	1	8	64	120	204	213	207	60	28	15	7	927
	0.04	0.35	2.76	5.18	8.80	9.19	8.93	2.59	1.21	0.65	0.30	40.01
	0.11	0.86	6.90	12.94	22.01	22.98	22.33	6.47	3.02	1.62	0.76	
	1.43	66.67	40.25	37.74	40.08	42.86	40.75	46.51	49.12	37.50	38.89	
MAJOR	0	0	10	14	18	17	19	5	1	2	3	89
	0.00	0.00	0.43	0.60	0.78	0.73	0.82	0.22	0.04	0.09	0.13	3.84
	0.00	0.00	11.24	15.73	20.22	19.10	21.35	5.62	1.12	2.25	3.37	
	0.00	0.00	6.29	4.40	3.54	3.42	3.74	3.88	1.75	5.00	16.67	
FATAL	0	0	0	2	1	0	0	0	0	1	0	4
	0.00	0.00	0.00	0.09	0.04	0.00	0.00	0.00	0.00	0.04	0.00	0.17
	0.00	0.00	0.00	50.00	25.00	0.00	0.00	0.00	0.00	25.00	0.00	
	0.00	0.00	0.00	0.63	0.20	0.00	0.00	0.00	0.00	2.50	0.00	
TOTAL	70	12	159	318	509	497	508	129	57	40	18	2317
	3.02	0.52	6.86	13.72	21.97	21.45	21.92	5.57	2.46	1.73	0.78	100.00

APPARENT DRIVER ACTION

ACTN_DRV	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
OTHER	522	11.3	522	11.3
NOT KNOWN	132	2.9	654	14.2
DISOBEY OTHE CNT	7	0.2	661	14.3
INATENTIVE DRIVI	143	3.1	804	17.4
DRVING PROPERLY	2243	48.6	3047	66.1
TOO CLOSE	25	0.5	3072	66.6
TOO FAST	64	1.4	3136	68.0
IMPROPER TURN	201	4.4	3337	72.4
DISOBEY SIGNAL	94	2.0	3431	74.4
DISOBEY STOP SIG	62	1.3	3493	75.7
FAIL TO YIELD	875	19.0	4368	94.7
IMPROPER PASSING	127	2.8	4495	97.5
LOST CONTROL	117	2.5	4612	100.0

TABLE 1 OF INVOLVED BY ACTN_DRV
CONTROLLING FOR LOC_CORD=AT INTERSECTION

INVOLVED PERSON INVOLVED ACTN_DRV APPARENT DRIVER ACTION

FREQUENCY / PERCENT / ROW PCT / COL PCT	OTHER	NOT KNOWN	DISOBEY OTHE CNT	INATENTIVE DRIVI	DRVING PROPERLY	TOO CLOSE	TOO FAST	TOTAL
DRIVER	94	30	1	37	550	3	4	1321
	3.58	1.14	0.04	1.41	20.96	0.11	0.15	50.34
	7.12	2.27	0.08	2.80	41.64	0.23	0.30	
	48.45	45.45	50.00	50.68	43.58	23.08	11.11	
CYCLIST	100	36	1	36	712	10	32	1303
	3.81	1.37	0.04	1.37	27.13	0.38	1.22	49.66
	7.67	2.76	0.08	2.76	54.64	0.77	2.46	
	51.55	54.55	50.00	49.32	56.42	76.92	88.89	
TOTAL	194	66	2	73	1262	13	36	2624
	7.39	2.52	0.08	2.78	48.09	0.50	1.37	100.00

(CONTINUED)

TABLE 1 OF INVOLVED BY ACTN_DRV
CONTROLLING FOR LOC_CORD=AT INTERSECTION

INVOLVED PERSON INVOLVED ACTN_DRV APPARENT DRIVER ACTION

FREQUENCY / PERCENT / ROW PCT / COL PCT	IMPROPER TURN	DISOBEY SIGNAL	DISOBEY STOP SIG	FAIL TO YIELD	IMPROPER PASSING	LOST CONTROL	TOTAL
DRIVER	108	25	11	427	26	5	1321
	4.12	0.95	0.42	16.27	0.99	0.19	50.34
	8.18	1.89	0.83	32.32	1.97	0.38	
	74.48	26.60	18.03	77.22	40.63	8.20	
CYCLIST	37	69	50	126	38	56	1303
	1.41	2.63	1.91	4.80	1.45	2.13	49.66
	2.84	5.30	3.84	9.67	2.92	4.30	
	25.52	73.40	81.97	22.78	59.38	91.80	
TOTAL	145	94	61	553	64	61	2624
	5.53	3.58	2.32	21.07	2.44	2.32	100.00

TORONTO BICYCLE ACCIDENT STATISTICS
CYCLIST & PASSENGERS INVOLVED IN BIKE/MOTOR VEHICLE ACCIDENTS
15:35 SATURDAY, NOVEMBER 10, 1984

TABLE 2 OF INVOLVED BY ACTN_DRV
CONTROLLING FOR LOC_CORD=MID-BLOCK

INVOLVED PERSON INVOLVED ACTN_DRV APPARENT DRIVER ACTION

FREQUENCY / PERCENT / ROW PCT / COL PCT	OTHER	NOT KNOWN	DISOBEY OTHE CNT	INATENTIVE DRIVI	DRVING PROPERLY	TOO CLOSE	TOO FAST	TOTAL
DRIVER	247 12.71 25.33 76.95	23 1.18 2.36 36.51	3 0.15 0.31 60.00	38 1.96 3.90 55.07	380 19.56 38.97 39.54	2 0.10 0.21 16.67	3 0.15 0.31 10.71	975 50.18
CYCLIST	74 3.81 7.64 23.05	40 2.06 4.13 63.49	2 0.10 0.21 40.00	31 1.60 3.20 44.93	581 29.90 60.02 60.46	10 0.51 1.03 83.33	25 1.29 2.58 89.29	968 49.82
TOTAL	321 16.52	63 3.24	5 0.26	69 3.55	961 49.46	12 0.62	28 1.44	1943 100.00

(CONTINUED)

TABLE 2 OF INVOLVED BY ACTN_DRV
CONTROLLING FOR LOC_CORD=MID-BLOCK

INVOLVED PERSON INVOLVED ACTN_DRV APPARENT DRIVER ACTION

FREQUENCY / PERCENT / ROW PCT / COL PCT	IMPROPER TURN	DISOBEY SIGNAL	DISOBEY STOP SIG	FAIL TO YIELD	IMPROPER PASSING	LOST CONTROL	TOTAL
DRIVER	43 2.21 4.41 78.18	0 0.00 0.00	0 0.00 0.00 0.00	195 10.04 20.00 62.50	33 1.70 3.38 52.38	8 0.41 0.82 15.09	975 50.18
CYCLIST	12 0.62 1.24 21.82	0 0.00 0.00 .	1 0.05 0.10 100.00	117 6.02 12.09 37.50	30 1.54 3.10 47.62	45 2.32 4.65 84.91	968 49.82
TOTAL	55 2.83	0 0.00	1 0.05	312 16.06	63 3.24	53 2.73	1943 100.00

APPARENT DRIVER ACTION

ACTN_DRV	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
OTHER	522	11.3	522	11.3
NOT KNOWN	132	2.9	654	14.2
DISOBEY OTHE CNT	7	0.2	661	14.3
INATENTIVE DRIVI	143	3.1	804	17.4
DRVING PROPERLY	2243	48.6	3047	66.1
TOO CLOSE	25	0.5	3072	66.6
TOO FAST	64	1.4	3136	68.0
IMPROPER TURN	201	4.4	3337	72.4
DISOBEY SIGNAL	94	2.0	3431	74.4
DISOBEY STOP SIG	62	1.3	3493	75.7
FAIL TO YIELD	875	19.0	4368	94.7
IMPROPER PASSING	127	2.8	4495	97.5
LOST CONTROL	117	2.5	4612	100.0

TABLE OF INVOLVED BY ACTN_DRV

INVOLVED PERSON INVOLVED ACTN_DRV APPARENT DRIVER ACTION

FREQUENCY / PERCENT / ROW PCT / COL PCT	OTHER	NOT KNOWN	DISOBEY OTHE CNT	INATENTIVE DRIVI	DRVING PROPERLY	TOO CLOSE	TOO FAST	TOTAL
DRIVER	342	54	4	76	943	5	7	2318
	7.42	1.17	0.09	1.65	20.45	0.11	0.15	50.26
	14.75	2.33	0.17	3.28	40.68	0.22	0.30	
	65.52	40.91	57.14	53.15	42.04	20.00	10.94	
CYCLIST	180	78	3	67	1300	20	57	2294
	3.90	1.69	0.07	1.45	28.19	0.43	1.24	49.74
	7.85	3.40	0.13	2.92	56.67	0.87	2.43	
	34.48	59.09	42.86	46.85	57.96	80.00	89.06	
TOTAL	522	132	7	143	2243	25	64	4612
	11.32	2.86	0.15	3.10	48.63	0.54	1.39	100.00

(CONTINUED)

TABLE OF INVOLVED BY ACTN_DRV

INVOLVED PERSON INVOLVED ACTN_DRV APPARENT DRIVER ACTION

FREQUENCY / PERCENT / ROW PCT / COL PCT	IMPROPER TURN	DISOBEY SIGNAL	DISOBEY STOP SIG	FAIL TO YIELD	IMPROPER PASSING	LOST CONTROL	TOTAL
DRIVER	151	25	11	628	59	13	2318
	3.27	0.54	0.24	13.62	1.28	0.28	50.26
	6.51	1.08	0.47	27.09	2.55	0.56	
	75.12	26.60	17.74	71.77	46.46	11.11	
CYCLIST	50	69	51	247	68	104	2294
	1.08	1.50	1.11	5.36	1.47	2.25	49.74
	2.18	3.01	2.22	10.77	2.96	4.53	
	24.88	73.40	82.26	28.23	53.54	88.89	
TOTAL	201	94	62	875	127	117	4612
	4.36	2.04	1.34	18.97	2.75	2.54	100.00

PERSON ASSESSED AS AT FAULT

FAULT	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
DRIVER	1375	58.0	1375	58.0
CYCLIST	994	42.0	2369	100.0

AGE OF CYCLIST

AGE_BIKE	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
UNKNOWN (HIT & R	82	3.5	82	3.5
0 - 4 YEARS	6	0.3	88	3.7
5 - 9 YEARS	154	6.5	242	10.2
10 - 14 YEARS	325	13.7	567	23.9
15 - 19 YEARS	528	22.3	1095	46.2
20 - 24 YEARS	508	21.4	1603	67.7
25 - 34 YEARS	508	21.4	2111	89.1
35 - 44 YEARS	138	5.8	2249	94.9
45 - 54 YEARS	57	2.4	2306	97.3
55 - 64 YEARS	44	1.9	2350	99.2
65 AND OVER	19	0.8	2369	100.0

APPARENT DRIVER ACTION

ACTN_DRV	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
OTHER	522	22.0	522	22.0
NOT KNOWN	132	5.6	654	27.6
DISOBEY OTHE CNT	7	0.3	661	27.9
INATENTIVE DRIVI	143	6.0	804	33.9
TOO CLOSE	25	1.1	829	35.0
TOO FAST	64	2.7	893	37.7
IMPROPER TURN	201	8.5	1094	46.2
DISOBEY SIGNAL	94	4.0	1188	50.1
DISOBEY STOP SIG	62	2.6	1250	52.8
FAIL TO YIELD	875	36.9	2125	89.7
IMPROPER PASSING	127	5.4	2252	95.1
LOST CONTROL	117	4.9	2369	100.0

TORONTO BICYCLE ACCIDENT STATISTICS
CYCLIST & PASSENGERS INVOLVED IN BIKE/MOTOR VEHICLE ACCIDENTS
15:35 SATURDAY, NOVEMBER 10, 1984

TABLE OF FAULT BY AGE_BIKE

FAULT PERSON ASSESSED AS AT FAULT AGE_BIKE AGE OF CYCLIST

FREQUENCY / PERCENT / ROW PCT / COL PCT	UNKNOWN (HIT & R	0 - 4 YEARS	5 - 9 YEARS	10 - 14 YEARS	15 - 19 YEARS	20 - 24 YEARS	25 - 34 YEARS	35 - 44 YEARS	45 - 54 YEARS	55 - 64 YEARS	65 AND OVER	TOTAL
DRIVER	19	0	24	111	306	349	386	102	37	30	11	1375
	0.80	0.00	1.01	4.69	12.92	14.73	16.29	4.31	1.56	1.27	0.46	58.04
	1.38	0.00	1.75	8.07	22.25	25.38	28.07	7.42	2.69	2.18	0.80	
	23.17	0.00	15.58	34.15	57.95	68.70	75.98	73.91	64.91	68.18	57.89	
CYCLIST	63	6	130	214	222	159	122	36	20	14	8	994
	2.66	0.25	5.49	9.03	9.37	6.71	5.15	1.52	0.84	0.59	0.34	41.96
	6.34	0.60	13.08	21.53	22.33	16.00	12.27	3.62	2.01	1.41	0.80	
	76.83	100.00	84.42	65.85	42.05	31.30	24.02	26.09	35.09	31.82	42.11	
TOTAL	82	6	154	325	528	508	508	138	57	44	19	2369
	3.46	0.25	6.50	13.72	22.29	21.44	21.44	5.83	2.41	1.86	0.80	100.00

VISIBILITY

VISIBLE	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	1			
CLEAR	2987	94.7	2987	94.7
RAIN	157	5.0	3144	99.7
SNOW SLEET	6	0.2	3150	99.9
FOG MIST SMOKE D	4	0.1	3154	100.0

OUTDOOR LIGHT STATUS

LIGHT	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	1			
DAYLIGHT	2552	80.9	2552	80.9
DAWN	5	0.2	2557	81.1
DUSK	108	3.4	2665	84.5
DARK	489	15.5	3154	100.0

ROAD SURFACE CONDITION

SURFACE	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	1			
DRY	2915	92.4	2915	92.4
WET	230	7.3	3145	99.7
LOOSE SNOW	4	0.1	3149	99.8
SLUSH	2	0.1	3151	99.9
PACKED SNOW	1	0.0	3152	99.9
LOOSE SAND OR GR	2	0.1	3154	100.0

TABLE 1 OF LIGHT BY SURFACE
CONTROLLING FOR VISIBLE=CLEAR

LIGHT OUTDOOR LIGHT STATUS SURFACE ROAD SURFACE CONDITION

FREQUENCY / PERCENT / ROW PCT / COL PCT	DRY	WET	LOOSE SNOW	SLUSH	PACKED SNOW	LOOSE SAND OR GR	TOTAL
DAYLIGHT	2403	49	2	1	1	1	2457
	80.45	1.64	0.07	0.03	0.03	0.03	82.26
	97.80	1.99	0.08	0.04	0.04	0.04	
	82.61	68.06	100.00	100.00	100.00	50.00	
DAWN	3	1	0	0	0	0	4
	0.10	0.03	0.00	0.00	0.00	0.00	0.13
	75.00	25.00	0.00	0.00	0.00	0.00	
	0.10	1.39	0.00	0.00	0.00	0.00	
DUSK	94	5	0	0	0	0	99
	3.15	0.17	0.00	0.00	0.00	0.00	3.31
	94.95	5.05	0.00	0.00	0.00	0.00	
	3.23	6.94	0.00	0.00	0.00	0.00	
DARK	409	17	0	0	0	1	427
	13.69	0.57	0.00	0.00	0.00	0.03	14.30
	95.78	3.98	0.00	0.00	0.00	0.23	
	14.06	23.61	0.00	0.00	0.00	50.00	
TOTAL	2909	72	2	1	1	2	2987
	97.39	2.41	0.07	0.03	0.03	0.07	100.00

TABLE 2 OF LIGHT BY SURFACE
CONTROLLING FOR VISIBLE=RAIN

LIGHT OUTDOOR LIGHT STATUS SURFACE ROAD SURFACE CONDITION

FREQUENCY / PERCENT / ROW PCT / COL PCT	DRY	WET	LOOSE SNOW	SLUSH	PACKED SNOW	LOOSE SAND OR GR	TOTAL
DAYLIGHT	5	85	0	0	0	0	90
	3.18	54.14	0.00	0.00	0.00	0.00	57.32
	5.56	94.44	0.00	0.00	0.00	0.00	
	83.33	56.29	.	.	.	.	
DAWN	0	1	0	0	0	0	1
	0.00	0.64	0.00	0.00	0.00	0.00	0.64
	0.00	100.00	0.00	0.00	0.00	0.00	
	0.00	0.66	.	.	.	.	
DUSK	0	9	0	0	0	0	9
	0.00	5.73	0.00	0.00	0.00	0.00	5.73
	0.00	100.00	0.00	0.00	0.00	0.00	
	0.00	5.96	.	.	.	.	
DARK	1	56	0	0	0	0	57
	0.64	35.67	0.00	0.00	0.00	0.00	36.31
	1.75	98.25	0.00	0.00	0.00	0.00	
	16.67	37.09	.	.	.	.	
TOTAL	6	151	0	0	0	0	157
	3.82	96.18	0.00	0.00	0.00	0.00	100.00

TABLE 3 OF LIGHT BY SURFACE
CONTROLLING FOR VISIBLE=SNOW SLEET

LIGHT OUTDOOR LIGHT STATUS SURFACE ROAD SURFACE CONDITION

FREQUENCY / PERCENT / ROW PCT / COL PCT	DRY	WET	LOOSE SNOW	SLUSH	PACKED SNOW	LOOSE SAND OR GR	TOTAL
DAYLIGHT	0	2	1	1	0	0	4
	0.00	33.33	16.67	16.67	0.00	0.00	66.67
	0.00	50.00	25.00	25.00	0.00	0.00	
	.	66.67	50.00	100.00	.	.	
DAWN	0	0	0	0	0	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	.	.	.	.	.	.	
	.	0.00	0.00	0.00	.	.	
DUSK	0	0	0	0	0	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	.	.	.	.	.	.	
	.	0.00	0.00	0.00	.	.	
DARK	0	1	1	0	0	0	2
	0.00	16.67	16.67	0.00	0.00	0.00	33.33
	0.00	50.00	50.00	0.00	0.00	0.00	
	.	33.33	50.00	0.00	.	.	
TOTAL	0	3	2	1	0	0	6
	0.00	50.00	33.33	16.67	0.00	0.00	100.00

TABLE 4 OF LIGHT BY SURFACE
CONTROLLING FOR VISIBLE=FOG MIST SMOKE D

LIGHT OUTDOOR LIGHT STATUS SURFACE ROAD SURFACE CONDITION

FREQUENCY / PERCENT / ROW PCT / COL PCT	DRY	WET	LOOSE SNOW	SLUSH	PACKED SNOW	LOOSE SAND OR GR	TOTAL
DAYLIGHT	0 0.00 0.00 .	1 25.00 100.00 25.00	0 0.00 0.00 .	0 0.00 0.00 .	0 0.00 0.00 .	0 0.00 0.00 .	1 25.00
DAWN	0 0.00 . .	0 0.00 . 0.00	0 0.00 . .	0 0.00 . .	0 0.00 . .	0 0.00 . .	0 0.00
DUSK	0 0.00 . .	0 0.00 . 0.00	0 0.00 . .	0 0.00 . .	0 0.00 . .	0 0.00 . .	0 0.00
DARK	0 0.00 0.00 .	3 75.00 100.00 75.00	0 0.00 0.00 .	0 0.00 0.00 .	0 0.00 0.00 .	0 0.00 0.00 .	3 75.00
TOTAL	0 0.00	4 100.00	0 0.00	0 0.00	0 0.00	0 0.00	4 100.00

CYCLIST & PASSENGERS INVOLVED IN BIKE/MOTOR VEHICLE ACCIDENTS

15:35 SATURDAY, NOVEMBER 10, 1984

TABLE OF YEAR BY VISIBLE

YEAR YEAR OF ACCIDENT VISIBLE VISIBILITY

FREQUENCY / PERCENT / ROW PCT / COL PCT	CLEAR	RAIN	SNOW SLEET	FOG MIST SMOKE D	TOTAL
1980	698	32	1	2	733
	22.13	1.01	0.03	0.06	23.24
	95.23	4.37	0.14	0.27	
	23.37	20.38	16.67	50.00	
1981	698	40	3	0	741
	22.13	1.27	0.10	0.00	23.49
	94.20	5.40	0.40	0.00	
	23.37	25.48	50.00	0.00	
1982	785	40	1	1	827
	24.89	1.27	0.03	0.03	26.22
	94.92	4.84	0.12	0.12	
	26.28	25.48	16.67	25.00	
1983	806	45	1	1	853
	25.55	1.43	0.03	0.03	27.05
	94.49	5.28	0.12	0.12	
	26.98	28.66	16.67	25.00	
TOTAL	2987	157	6	4	3154
	94.71	4.98	0.19	0.13	100.00

FREQUENCY MISSING = 1

TABLE OF YEAR BY LIGHT

YEAR YEAR OF ACCIDENT LIGHT OUTDOOR LIGHT STATUS

FREQUENCY / PERCENT / ROW PCT / COL PCT	DAYLIGHT	DAWN	DUSK	DARK	TOTAL
1980	568	2	19	144	733
	18.01	0.06	0.60	4.57	23.24
	77.49	0.27	2.59	19.65	
	22.26	40.00	17.59	29.45	
1981	620	1	29	91	741
	19.66	0.03	0.92	2.89	23.49
	83.67	0.13	3.91	12.28	
	24.29	20.00	26.85	18.61	
1982	680	2	35	110	827
	21.56	0.06	1.11	3.49	26.22
	82.22	0.24	4.23	13.30	
	26.65	40.00	32.41	22.49	
1983	684	0	25	144	853
	21.69	0.00	0.79	4.57	27.05
	80.19	0.00	2.93	16.88	
	26.80	0.00	23.15	29.45	
TOTAL	2552	5	108	489	3154
	80.91	0.16	3.42	15.50	100.00

FREQUENCY MISSING = 1

APPENDIX D
BICYCLE ACCIDENT STATISTICS

Prepared by Transportation Regulation
Development Branch

Ministry of Transportation
and Communication
December 1984

BICYCLE ACCIDENT STATISTICS

TRANSPORTATION REGULATION
DEVELOPMENT BRANCH

MINISTRY OF TRANSPORTATION
AND COMMUNICATION

DECEMBER, 1984

Limitations on Statistical Data

The following limitations should be noted when interpreting the data in this statistical package.

1. Data includes only reported accidents which occur between bicycles and motor vehicles on public roadways

   - does not include private property accidents

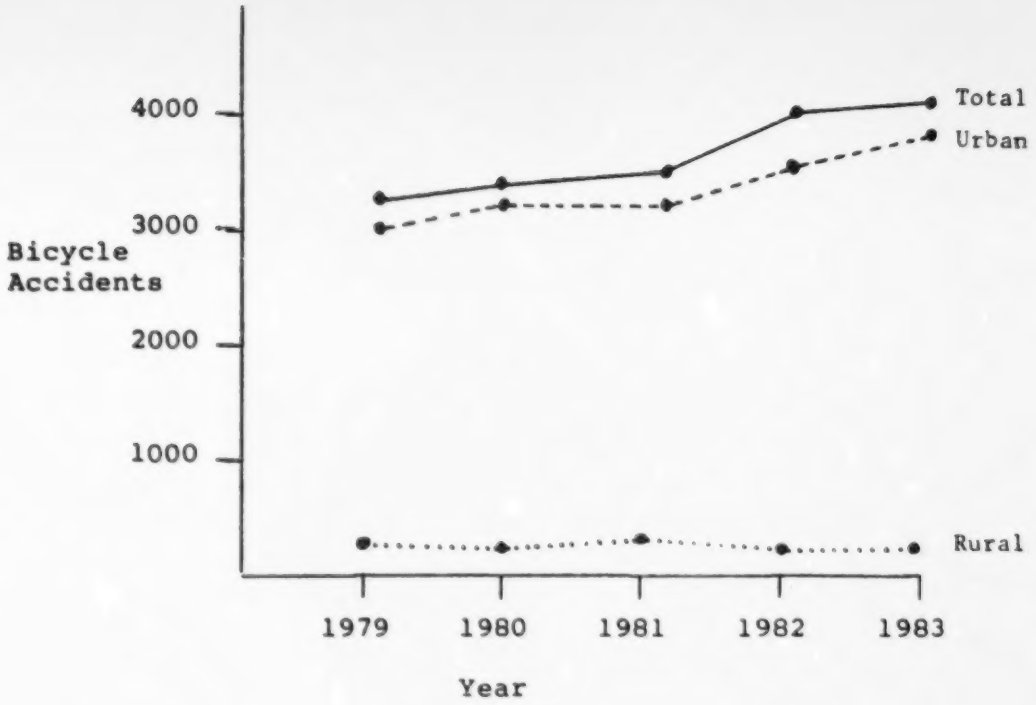
   - data based on accidents only

2. Data includes accidents involving property damage alone only if the amount of the damage exceeds $400.

3. No data regarding the size of bike or speed at which it was travelling

4. Because of reporting procedures, suspected underestimate of accidents with no injuries or minimal injuries to bicyclists.

Reported Bicycle Accidents
1979 - 1983



Urban Bicycle accidents have increased; the number of rural bicycle accidents has been stable

The proportions of Bicycle accidents for different age groups, different injury classifications, and under different light conditions have been stable from 1979 to 1983

Age Groups - Bicyclists in Accidents - 1983*

	N	%
1-4	43	1.0
5-10	636	15.2
11-15	1132	27.0
16-20	972	23.2
21-24	516	12.3
25-34	460	11.0
35-44	164	3.9
45-54	81	1.9
55-64	50	1.2
65-74	28	0.7
75 and over	12	0.3
Unknown	95	2.3
Total	4,189	100.0

* For this table, additional manual examination of the "unknown" group allowed for adjustments to the age category totals.

Injuries - Bicyclists in Accidents 1983

	N	%
None	137*	3.3
Minimal	1,978	47.2
Minor	1,690	40.3
Major	335	8.0
Fatal	49	1.2
Total	4,189	100.0

* Because of the definition of a reportable motor vehicle accident this is probably an underestimate.

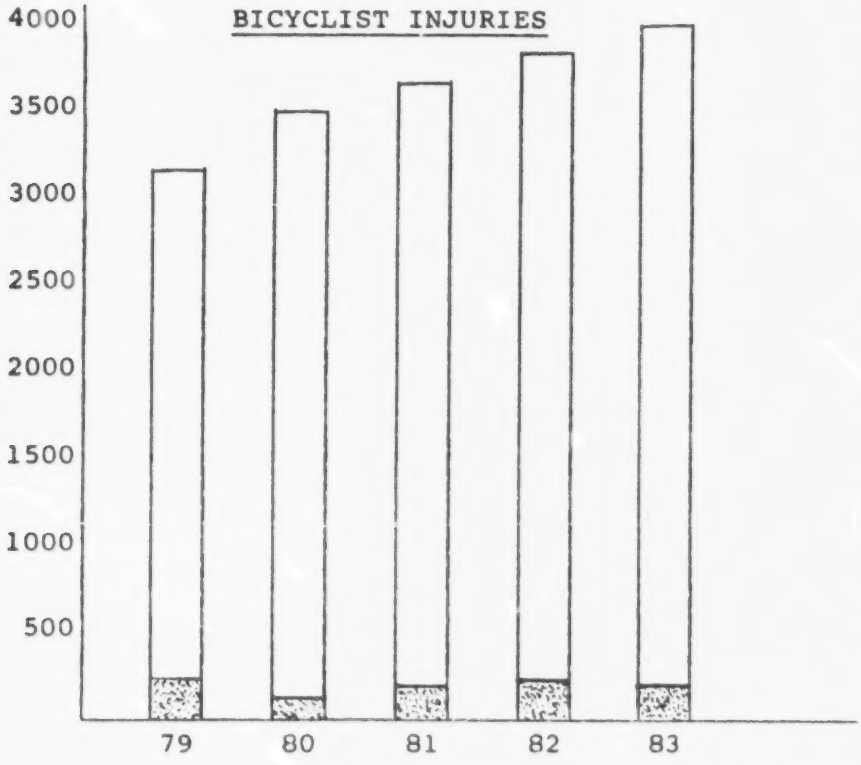
Light Conditions - Bicycle Accidents - 1983

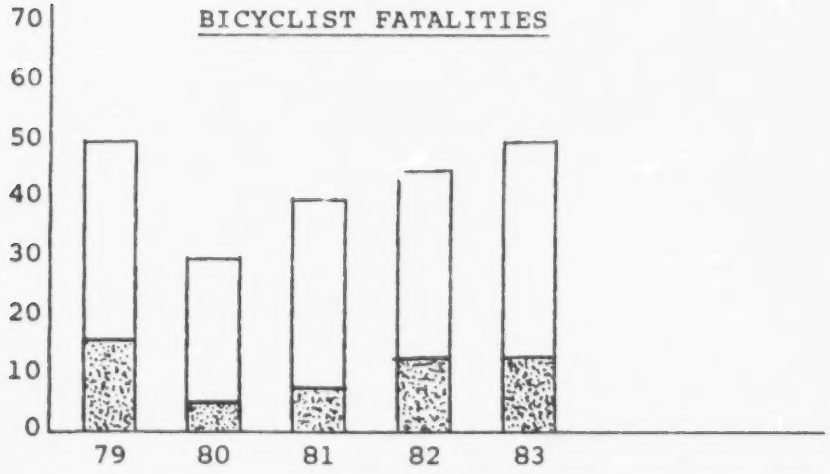
	N	%
Daylight	3,418	81.6
Dawn	18	0.4
Dusk	171	4.1
Dark	582	13.9
Total	4,189	100.0

Road Jurisdiction - Bicycle Accidents - 1983

	N	%
Municipal	3,597	86.6
Provincial	138	3.3
Township	107	2.6
County or District	51	1.2
Regional Municipality	248	5.9
Other	18	.4
Total	4,189	100.0

1979 - 1983





Compared with injury accidents a greater proportion of fatal accidents occurred on highways under provincial jurisdiction

Sex of Bicyclists - 1983

	N	%
Male	3,044	72.7
Female	1,060	25.3
Unknown	85	2.0
Total	4,189	100.0

The youngest and oldest age groups of bicyclists involved in reportable accidents with motor vehicles are almost exclusively male. Males are slightly over-represented in night-time accidents and fatality accidents

Accidents Involving Motor Vehicles and Bicyclists

By Injuries and Age - 1983

	1-4 %	5-10 %	11-15 %	16-20 %	21-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75& Over %	Unkn %	Total %
Minimal/ Minor	84.4	86.9	90.8	91.9	92.6	87.8	91.2	85.9	95.5	69.6	60.0	93.9	90.5
Major	12.5	11.8	7.8	7.1	7.4	10.7	7.4	9.9	2.3	17.4	30.0	5.7	8.3
Fatal	3.1	1.3	1.5	1.1	0.0	1.5	1.4	4.2	2.3	13.0	10.0	.4	1.2
Total (N)	32	551	964	851	462	401	148	71	44	23	10	495	4052

Fatalities among older bicyclists (65 and over) were proportionately higher for other age groups

Accidents Involving Motor Vehicles and Bicyclists

By Light Conditions and Age - 1983

	1-4 %	5-10 %	11-15 %	16-20 %	21-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75& Over %	Unkn %	Total %
Daylight	84.8	93.9	84.4	74.4	80.8	77.4	82.8	71.6	73.9	91.3	100.	80.1	81.6
Dawn	.0	.0	.3	.6	.8	.0	.0	2.7	.0	.0	.0	.7	.4
Dusk	15.2	3.8	4.1	4.2	3.4	3.9	2.0	2.7	4.3	.0	.0	5.1	4.1
Dark	.0	2.3	11.1	20.8	15.0	18.7	15.2	23.0	21.7	8.7	.0	14.0	13.9
Total (N)	33	556	989	879	473	411	151	74	46	23	10	544	4189

Accidents Involving Motor Vehicles and Bicyclists

By Light Conditions and Injuries - 1983

	Minimal/ Minor %	Major %	Fatal %	Total %
Daylight	82.7	77.6	51.0*	81.9
Dawn	.5	0.0	0.0	0.4
Dusk	4.1	3.0	8.2*	4.0
Dark	12.7	19.4	40.8*	13.6
Total (N)	3,668	355	49	4,052

Bicyclist fatalities were more likely to have occurred in dusk or dark light conditions

Motor Vehicles Involved with Bicyclists - 1983

	N	%
Passenger Car	3,078	76.8
Taxi or Limousine	15	0.4
Police Force Vehicle	2	0.0
Passenger Van	21	0.5
Other Pass. Vehicle	5	0.1
Pass. Car and Trailer	9	0.2
Pickup Truck/Delivery Van	348	8.7
Truck	67	1.7
Transit Vehicle	60	1.5
School Vehicle	7	0.2
Motorcycle/Moped	73	1.8
Unknown	309	7.7
Total	3,997	100.0

Vehicle Maneuvers by Bicyclists - 1983

	N	%	
Going Ahead	3,261	77.8	
Slowing or Stopping	40	1.0	
Overtaking	41	1.0	
Turning Left	304	7.3	
Turning Right	93	2.2	9.5
Making U-Turn	20	.5	
Changing Lanes	87	2.1	
Merging	7	.2	
Stopping or Parked	37	.9	
Pulling from Shoulder/Curb	65	1.6	
Pulling to Shoulder/Curb	6	.1	1.7
Not Known - Other	228	5.4	
Total	4,189	100.0	

Vehicle Maneuver by Age - Bicyclists 1983

	1-4 %	5-10 %	11-15 %	16-20 %	21-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75& Over %	Unknown %	Total %
Going Ahead %	66.7	68.0	72.6	81.6	89.4	87.3	82.8	87.8	82.6	65.2	80.0	72.2	77.8
Turning	0.0	13.2	13.2	8.5	5.1	4.4	7.2	6.8	10.9	13.0	0.0	9.3	9.5
Changing Lanes	0.0	2.2	2.4	2.0	1.5	2.2	2.6	1.4	4.3	4.3	10.0	1.5	2.1
Pulling to/from Shoulder or Curb	15.2	4.0	2.4	0.9	0.2	0.2	0.0	1.4	0.0	0.0	0.0	1.7	1.7
Other Actions	6	2.7	3.3	4.3	2.5	4.4	4.8	1.2	0.0	8.8	10	3.4	3.5
Not Known Other	12.1	9.9	6.1	2.7	1.3	1.5	2.6	1.4	2.2	8.7	.0	11.9	5.4
Total (N)	33	556	989	879	473	411	151	74	46	23	10	544	4189

Younger and Older Bicyclists were more likely to be carrying out a maneuver (other than "going ahead") when involved in an accident

Vehicle Maneuver - Vehicles Involved with Bicyclists - 1983

	N	%	
Going Ahead	1,955	48.8	
Slowing or Stopping	76	1.9	
Overtaking	117	2.9	
Turning Left	652	16.3	
Turning Right	636	15.9	32.2
Making U-Turn	13	0.3	
Changing Lanes	41	1.0	
Merging	15	0.4	
Reversing	93	2.3	
Stopping or Parked	292	7.3	
Pulling from Shoulder/Curb	20	0.5	
Pulling to Shoulder/Curb	22	0.5	1.0
Not Known - Other	75	1.9	
Total	4,007	100.0	

Compared with bicyclists the other involved vehicle was less likely to have been going ahead and more likely to have been turning

Driver Action of Bicyclist - 1983

	N	%	
Driving Properly	1,631	38.9	
Following Too Close	26	0.6	
Speed Too Fast	95	2.3	
Improper Turn	196	4.7	
Disobey Traffic Signal	162	3.9	
Disobey Stop Sign	210	5.0	8.9
Fail to Yield Right of Way	557	13.3	
Improper Passing	67	1.6	
Lost Control	155	3.7	
Wrong Way on One Way Road	41	1.0	
Disobey Other Controls	1	1.0	
Other	527	12.6	
Unknown	521	12.4	
Total	4,189	100.0	

Driver Action by Age
Bicyclists - 1983

	1-4 %	5-10 %	11-15 %	16-20 %	21-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75& Over %	Unknown %	Total %
Driving Property %	12.1	12.6	26.8	46.4	59.8	65.7	62.3	54.1	47.8	43.5	60.0	29.2	38.9
Fail to Yield Right of Way %	57.6	34.4	17.9	8.4	4.2	3.6	6.6	6.8	4.3	8.7	10.0	7.5	13.3
Fail to Obey Signal Sign %	3.0	14.9	12.6	7.7	5.9	4.1	7.3	1.4	4.4	4.3	0.0	6.8	8.9
Other %	21.2	30.5	34.7	27.8	19.3	18.3	13.2	28.2	30.5	26.1	20.0	20.8	26.5
Unknown %	6.1	7.6	8.0	9.7	10.8	8.3	10.6	9.5	13.0	17.4	10.0	35.7	12.4
Total (N)	33	556	989	879	473	411	151	74	46	23	10	544	4189

Young bicyclists (1-15) were least likely to have been driving properly and most likely to have failed to yield right of way

Driver Action by Road Jurisdiction

	Municipal	Provincial	Township	County or District	Regional Municip.	Other	Total
Driving Properly %	40.3	29.7	16.8	27.5	36.3	33.3	38.9
Fail to Yield Right of Way %	12.2	15.9	33.6	19.6	16.1	27.8	13.3
Fail to Obey Signal/Sign %	9.1	5.1	10.2	7.9	8.0	5.6	8.9
Other %	25.7	39.2	31.0	37.2	26.3	22.2	26.5
Unknown %	12.7	10.1	8.4	7.8	13.3	11.1	12.4
Total (N)	3,627	138	107	51	248	18	4,189

Bicyclists on Municipal Roads were most often reported to been driving properly. Bicyclists on Township Roads were least often driving properly and most often failed to yield the right of way

Driver Action - Vehicles Involved with Bicycles - 1983

	N	%	
Driving Properly	2,040	50.9	
Following Too Close	10	0.2	
Speed Too Fast	39	1.0	
Improper Turn	194	4.8	
Disobey Traffic Signal	31	0.8	
Disobey Stop Sign	17	0.4	1.2
Fail to Yield Right of Way	735	18.3	
Improper Passing	64	1.6	
Lost Control	17	0.4	
Wrong Way on one Way Road	1	0.0	
Disobey Other Controls	1	0.0	
Other	271	6.8	
Unknown	587	14.6	
Total	4,007	100.0	

Compared with bicyclists the other involved vehicle was more likely to have been reported as driving properly

Driver Condition of Bicyclist - 1983

	N	%
Normal	3,723	88.9
Had Been Drinking	89	2.1
Ability Impaired, Alcohol	8	0.2
Ability Impaired, Drugs	0	0.0
Fatigue	2	0.0
Medical or Physical Defect	20	0.5
Unknown	341	8.1
Other	6	0.1
Total	4,189	100.0

Driver Condition By Injuries -

Bicyclists - 1983

	Minimal/ Minor %	Major %	Fatal %	Total %
Normal	90.4	84.8	57.1*	89.5
Had been Drinking/ Impaired	2.2	2.1	10.2	2.2
Other	0.6	.9	0.0	0.7
Unknown	6.8	12.2	32.7	7.6
Total (N)	3,668	335	49	4,052

Alcohol involvement is found for older bicyclists (16 and over) and slightly more often at night

Driver Condition - Vehicles Involved with Bicycles - 1983

	N	%
Normal	3,397	84.8
Had Been Drinking	60	1.5
Ability Impaired, Alcohol	36	0.9
Ability Impaired, Drugs	0	0.0
Fatigue	1	0.0
Medical or Physical Defect	5	0.1
Unknown	507	12.7
Other	1	0.0
Total	4,007	100.0

Road Location

	N	%
Non Intersection	869	20.7
Intersection	729	17.4
In Intersection	1,611	38.5
At/Near Private Drive	948	22.6
Other	32	.8
Total	4,189	100.0

Road Location By Injuries
Bicyclists - 1983

	Minimal/ Minor %	Major %	Fatal %	Total %
Non-Inter-section	19.2	32.2	55.1	20.1
At or In Intersection	56.9	48.3	36.7	55.9
At/Near Pri-vate Drive	23.1	18.8	8.2	22.6
Other	0.8	0.7	0.0	0.8
Total (N)	3,668	335	49	4,052

Proportionately more fatalities occurred at non-intersections

Maximum Speed of Road

	N	%
Less than 40 Km/h	30	.7
40 km/h	190	4.5
50 km/h	3,254	77.7
60 km/h	464	11.1
70 km/h	26	0.6
80 km/h	209	5.0
over 80 km/h	16	.4
Total	4,189	100.0

Maximum Speed of Road By Injuries

	Minimal/ Minor %	Major %	Fatal %	Total %
40 km/h and under	5.2	5.4	0.0	5.2
50 km/h	79.8	60.3	40.8	77.7
60 km/h	10.8	12.2	14.3	11.1
70-80 km/h	3.8	20.6	42.8	5.6
Over 80	0.3	1.5	2.0	.4
Total (N)	3,668	335	49	4,052

Proportionately more fatalities occurred on high speed roadways

Bicyclist Safety Equipment

	1979 %	1980 %	1981 %	1982 %	1983 %
None (N)	98.7 (3293)	98.6 (3473)	98.3 (3590)	97.6 (3942)	96.7 (4052)
Helmet Available (N)	0.4 (13)	0.5 (17)	0.6 (21)	0.7 (29)	1.4 (57)
Unknown (N)	0.6 (20)	0.7 (26)	.9 (32)	1.2 (50)	1.5 (64)
Other (N)	0.3 (9)	0.2 (7)	0.2 (8)	0.4 (16)	0.4 (16)
Total (N)	100.0 (3,335)	100.0 (3,523)	100.0 (3,651)	100.0 (4,037)	100.0 (4,189)

Helmet use by bicyclists involved in motor vehicle accidents has increased over the past 5 years but remains infrequent

Age of Bicycle Passengers - 1983

	N	%
Unknown	5	8.2
1 - 5	14	22.9
6 - 10	11	17.9
11 -15	20	32.7
16 - 20	7	11.4
Over 20	4	6.6
Total	61	100.0

Sex of Bicycle Passengers - 1983

	N	%
Male	35	57.4
Female	23	37.7
Total	61	100.0

Injuries of Bicycle Passengers - 1983

	N	%
None	13	21.3
Minimal	25	41.0
Minor	21	34.4
Major	2	3.3
Fatal	0	0.0
Total	61	100.0

APPENDIX E
CONFERENCE ON CYCLING AND THE LAW

SUMMARY AND AGENDA

Prepared by Denys Beames,
Bicycle Researcher for the
City Cycling Committee

SUMMARY AND AGENDA

This document is a summary of the position papers received for use as background to the Conference on Cycling and the Law. This document also serves as the agenda for the Conference workshop sessions.

The summary was done by adding up the positive, negative and equivocal positions taken on the questions asked in the pre-conference literature. Questions on which there appeared to be a consensus are noted and can be dealt with quickly. Questions which stirred debate are noted and more time is allowed for discussion. Some comments have been made to take into account pertinent observations in position papers. Questions that elicited little response have been dropped from the agenda, while other questions of some pertinence that have arisen lately have been added to the agenda for discussion if there is time.

Opening Comments

One area of concern raised both in the Canada Safety Council paper and at the recent Canadian Cycling Association annual general meeting is the definition of the bicycle. There are many definitions varying from global to narrow, presently used in various parts of Canada for various purposes. Since the main concern of this Conference is behaviour of the overwhelming majority of cyclists in Ontario at this time, the definition of the bicycle will narrowly address this area of concern.

Definition:

"Bicycle means a two-wheeled, single-track vehicle propelled solely by human muscular power." (Canadian Standards Association, CAN3-D113.1-M80, p.9).

If there is time, an expanded definition can be discussed at the end of the Traffic Law Conference workshop or at the end of the Product Safety Standards workshop.

Another area of concern raised is the role of the bicycle. There is a consensus that the bicycle is a vehicle under the Highway Traffic Act with all the rights and responsibilities of any other vehicle and operator combination.

However, the special nature of the vehicle called the bicycle gives rise to concerns. Cyclists feel that, because of the small size of the bicycle, it is not given its proper place on the road. Motorists feel that the bicycle is slow, unstable, and all too often, acts like a frail random element on the road.

This Conference is an opportunity to sort out the confusions.

AGENDA ITEMS

Traffic Law Workshop

1. **Should rolling stops be allowed??**

   Generally negative.

   Comment - problem of overkill/devaluing stop signs, where they are used as traffic discouragement. Debate yield versus stop signs versus no control in residential areas. Vancouver uses no controls.

2. **Should cyclists be allowed to ride the wrong way on some one-way streets?**

   Generally negative.

   Comment - could a wrong-way bike lane sometimes be effective? (traffic engineering).

3. **Should headphone devices other than hearing aids be banned?**

   Generally positive.

   Comment - why not loud car stereos and motorcycle stereos too? Anti-comment - hearing more crucial to cyclists.

4. **Should police be given the power under the Highway Traffic Act to request the name and address of all HTA violators?**

   Generally positive.

   Comment - power to confiscate bicycle if no proof of identity forthcoming?

5. **Should helmets be made mandatory?**

   Some yes, some no - agreement on research need.

   Comment - could this be sent to Product Safety Committee, with long-term endorsement (review in 2-5 years) a possibility?

6. **Should right-arm right-turn signal be made legal?**

   Mostly positive.

   Comment - (i) does not rule out conventional right-turn signal; (ii) makes life easier for cyclists.

7. **Can standards of bicycle operating mechanical safety be legislated?**

   All positive.

   Comment - adopt principle, let product safety group work out specifics.

8. **Night riding: what constitutes safe lighting, and should it only be required after dark?**

   Equivocal.

   Comment - decide on whether only after dark or not; refer proper lighting to product safety group.

9. **Should a vehicle overtaking a cyclist on the left have to leave a minimum one-metre space between itself and the cyclist?**

   Generally positive.

   Comment - should same rule apply, city and country (high and low speed roads)?

10. **Should bicycle riders have to use bicycle paths where they are adjacent to roads?**

    Equivocal.

    Comment - accident analysis to date indicates cyclists much safer on roads!

11. **Should the requirement of sounding devices on bicycles be dropped?**

    Equivocal.

    Comment - issue (i) pedestrians hear them, but can drivers? (ii) on many bicycles one must choose between control and a sound warning in potential danger situations.

12. **Can "as far to the right as practicable" be better defined?**

    Generally, yes.

    Comment - there are alternatives that are better, and since phrase is endemic in traffic law, though not used in Ontario, an improved version would be an asset that could become Ontario law. See p. 12, Attorney General's submission for excellent discussion.

13. **Sidewalk riding: what cyclists, if any, should be allowed to ride on sidewalks? Municipal or provincial decision?**

    Equivocal at present.

    Comment - (i) must decide age versus vehicle type, (ii) ties into minimum age for road users - 11-12 in some places. Intellectual riding decision-making skills don't appear until age 8-10, according to psychologists.

New Business

14. **Problem of use of traffic by-laws for neighbourhood traffic control - where do you draw the line?**

Comment - it is literally exhausting to stop and go every block. Inconvenience without justifiction breeds law contempt.

15. **The bicycle path: who has jurisdiction? Are they under the Highway Traffic Act? If not, how should traffic rules be applied there?**

Comment - bike path behaviour has many implications (i) accident reporting and obligation to stay at scene, (ii) cyclist liability in cyclist-pedestrian on-path accidents, (iii) enforcement - what and how?

16. **For the future: can the definition of a bicycle be expanded to include other Human-Powered Vehicles (HPVs)?**

Comment - could be one or two definitions, or more. Need to know what HPVs can do.

17. **Should the above definitions be written into Ontario's traffic law?**

Comment - at present they are not written in.

Enforcement Workshop

1. **Licensing/registration of bicycles and/or cyclist.**

   Equivocal.

   Comment - decide what and why:

   - Register bicycles only - theft, identification.
   - License riders only - identification and skill level.
   - Register/license rider and bicycle - theft, skill, identification.

   Perhaps each of the above strategies could be discussed.

2. **Are there insurance implications to any of the above strategies?**

   Some positive.

   Comments - while cyclists with household or apartment insurance already have third party liability insurance, the question of accident liability and insurance for cyclists in general is not well understood.

3. **Should commercial bicycle users have a special licence?**

   Some positive, one negative, most equivocal.

   Comments - this question leads into two others (i) should such licences be municipal or provincial and (ii) what are the insurance implications?

4. **Do police need the power to request the name and address of cyclist traffic law violators?**

   Generally positive.

   Comment - awkward wording in the Highway Traffic Act leads to enforcement ambiguities. A clear statement of what the mandate of police is for dealing with cyclist traffic law violators can be proposed.

5. **What traffic laws should be most strictly enforced against cyclists?**

   Comment - There are various possibilities:

   - All, equally.
   - Priority to those causing most accidents and disruption of traffic pattern.
   - Selective target-law enforcement with general enforcement backup (Ottawa STEP program).

6. **Who, if any, should be allowed to ride on sidewalks?**

Consensus: small children; "pre-roadworthy" cyclists; "play vehicles" only.

Comment - the municipal law in Toronto goes by bicycle wheel size. Unfortunately some fast, adult bicycles have wheels less than the 24 inch maximum size for sidewalk riding. There is a need for a clear statement as to who, if anyone, should ride on sidewalks.

7. **Penalties: how severe should they be? What is fair?**

Comments - many suggestions were made. There were opinions that some fines are too small and some too big. The issue of points transfer, it was noted, is unconstitutional, since it is discriminatory punishment applying only to vehicle drivers.

Provincial versus municipal penalties and youth versus adult penalties also need discussion. The potential role of bicycle impoundment can be discussed.

A consistent, province-wide penalty system with proper police enforcement powers under the Highway Traffic Act is one potential ideal.

8. **What traffic laws should be most strictly enforced against motor vehicle drivers interacting with cyclists?**

Comment - failure to yield right-of-way violations, opening doors into traffic, unsafe passing, parking offences, "lack of consideration laws" were all mentioned as targets.

The present problem is that cyclists feel police are not sensitized enough to motorist actions that endanger cyclists.

New Business

9. **Enforcement on bicycle paths: what and how?**

Comment - heavily-used bicycle paths are a relatively new phenomenon. What laws should apply there? Who should enforce them? How? Are insurance implications different on bicycle paths than on streets because the same laws do not apply?

Product Standards Workshop

1. **Should specific clothings, such as safety vests, be made safety requirements?**

   Generally negative.

   Comment - there is a suggestion that more research be done in this area. An alternative is that reflective clothing material that meets CSA standards be accepted after dark in place of bicycle reflective material, i.e. reflective leg bands or heel spots in place of pedal reflectors, etc.

2. **What constitutes a sufficient night lighting system?**

   Responses vary from reflectors only to lights plus reflectors.

   Comment - there are two components to this question:

   . Active lighting (generator/battery lights).

   . Passive lighting (reflective material).

   Questions to answer include:

   . Which component is most necessary?

   . What minimum standards are necessary for visibility of lights and reflectors?

3. **Should the guidelines for side view passive lighting be dropped?**

   Controversial.

   Comment - side reflectors are aesthetically unpleasing, and require incident light sources at specific angles for best effect. They show best as post hoc - cyclist was here - devices. They give little pre hoc - cyclist coming - warning. However, within their limitations they are highly effective. The white front light is pre hoc. Given a proper white front light, is sideways passive illumination necessary?

4. **Can lighting system quality standards be set?**

   Generally positive to equivocal.

   Comment - at issue here is adequacy of product, and of power source. Mounting systems also need investigation. Since night illumination is a prerequisite of safe night operation, there is a need for guidelines on quality of product. Especially with generators, the failure rate is high. Mounting systems fail. Batteries burn out during the ride. Meeting visibility standards is only the first step to development of safe, effective lighting systems.

5. **Are bells and other sounding devices worthwhile as mandatory attachments to bicycles?**

   Controversial. While most say no, it is only 5 to 3 iagainst.

Comment - there are two issues here:

- Are hand-operated sounding devices effective in all sound environments?
- Does sounding device operation interfere with bicycle control in emergency situations?

Unless the answer to the first question is always "yes" and the answer to the second question is always "no", can the devices be justified as mandatory attachments?

6. Should "safety" levers be banned?

Controversial.

Comment - while there is some justification for these lever extensions, their use provides very inferior control when compared to proper use of normal brake levers.

Perhaps they could be put only on children's bicycles, as their rationale is they can be operated by smaller, weaker hands than ordinary levers.

7. Can helmet standards be set? What about standards for small children's helmets?

Consensus: more research.

Comment - perhaps a recommendation to specific action with a specific time line is necessary.

8. What constitutes a safe design for a baby seat?

Controversial - some don't even want them.

Comment - there are various proposals:

- Ban them.
- More research.
- The London proposal (see London position paper, p. 3).
- Seats only mounted backward. With high seats, this prevents whiplash during fast stops.

9. What is a mechanically sound bicycle?

Comment - "this needs discussion". "Let experts set the standards."

There are experts in this workshop. Police need guidelines for enforcement. The key areas to discuss are - brakes, wheels, steering.

New Business

10. **How much of these recommendations goes to the Highway Traffic Act, and how much to other bodies? What other bodies?**

    Comment - it is time to decide between voluntary and official regulation.

APPENDIX F
CANADIAN STANDARDS ASSOCIATION BICYCLE STANDARDS

The following text Bicycles CAN3-D113.1-M80 is only a partial transcription of the entire text.

The sections on text procedures and on marking and instructions are missing, as are the appendices.

For the complete CSA standard on bicycles, Bicycles CAN3-D113.1-M80, please write to:

Canadian Standards Association
178 Rexdale Boulevard
Rexdale, Ontario
M9W 1R3

Telephone: 416/747-4370

CAN3-D113.1-M80

Bicycles

1. Scope

1.1 This Standard sets forth safety requirements and standards for the sub-assemblies and assemblies of regular bicycles, as well as recommended safety measures for their use and care.

1.2 Special bicycles, such as track bicycles designed for use on racing tracks and which may not have a normal braking system or other operating systems deemed essential by the authority having jurisdiction, are specifically excluded from the scope of this Standard.

1.3 The purpose of this Standard is to help prevent injury and property damage, and to help provide maximum safety for bicycle users.

2. Definitions

2.1 The following definitions apply in this Standard:

Bicycle means a two-wheeled single-track vehicle propelled solely by human muscular power;

> ***Regular bicycle*** means a bicycle on which the vertical distance between horizontal ground level and the point on the seating surface of the seat intercepted by the extension of the seat post centreline is not less than 635 mm, when the seat is adjusted to its highest riding position. It also means a bicycle not requiring special authorization to be used on public thoroughfares;
>
> ***Tandem bicycle*** means a regular bicycle with seats for two or more riders, one behind the other;

Bottom bracket means that member of a bicycle frame which retains the crank assembly to which the pedals are attached;

Chain guard means the cover or shield used to help in preventing interference of a foreign object between the chain and front sprocket;

Fork stem means the upper tubular member of a bicycle fork which is assembled into the frame head tube;

Head tube means the front member of a bicycle frame which retains the fork stem;

Reflectivity means a characteristic of a retroreflective and reflex reflective material exhibited by incident light being returned to the light source;

Reflex reflector means a cube corner moulded plastic reflector;

Retroreflective material means a material usually supplied in the form of a continuous sheeting utilizing glass lens elements as reflective media which are bonded in an organic resin coating;

Saddle braces means seat supports other than the seat post, commonly used at the rear of long seats and attached to the rear axle or rear frame member;

Seat post means a saddle or seat support for positioning and supporting the saddle or seat.

3. General Requirements

3.1 Caster and Caster Angle

The caster, measured as shown in Figure 1 shall be between 25 and 100 mm inclusive, and the caster angle shall be between 15 and 25° inclusive.

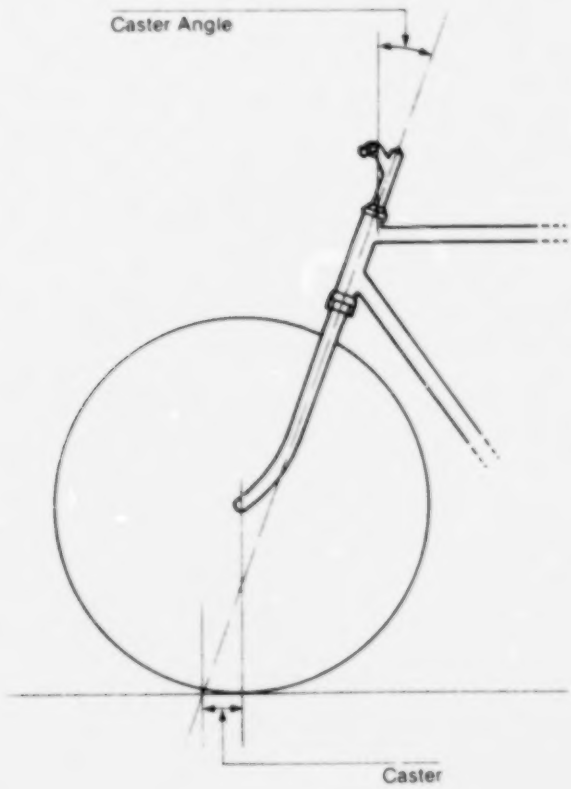


Figure 1

Measurement of Caster and Caster Angle

3.2 Saddle Positioning

No part of the seating surface, the saddle being in its lowest position, shall be more than 75 mm to the rear of a plane running vertically through the centre of the rear axle adjustment and no more than 125 mm, the saddle being in its highest position, when the bicycle is positioned upright on a level surface.

3.3 Chain Guards

A bicycle shall be equipped with a protective device(s) that shields the junction of the drive chain and drive sprocket against entrapment of clothing or body parts. This device shall be either:

(a) Fixed to the frame, shielding the top length of the drive chain and running from the front diagonal tube to within 100 mm of the rear axle with protection extending laterally and vertically at least 5 mm past the top and side of the chain respectively; or

(b) A disc (or ring) fixed to the major drive sprocket and in diameter equal to or greater than the diameter of the major drive sprocket. The device shall be not more than 15 mm from the sprocket and located between the sprocket and the pedal crank.

3.4 Saddle Braces

No part of a saddle ace or back portion of a saddle, or both, shall extend more than 125 mm above the seating surface of the saddle in any position.

3.5 Pedals

3.5.1 Clearance

3.5.1.1 When the pedal is at its lowest point with the tread surface of the pedal parallel to the ground, and the bicycle is tilted 25° from the vertical, the pedal shall not touch the ground. This test shall be carried out on a smooth level surface.

3.5.1.2 The minimum clearance between the pedal axis and the front mudguard or wheel shall be not less than 90 mm when measured as shown in Figure 2. The pedal shall not contact the front mudguard or wheel at any pedal or front wheel position.

3.5.2 Attachment to the Crank

When pedals are assembled on the cranks by threading, left hand threads shall be provided on the left hand crank and right hand threads shall be provided on the right hand crank. The right and left hand cranks shall be those to the right and left respectively of the operator in the normal riding position.

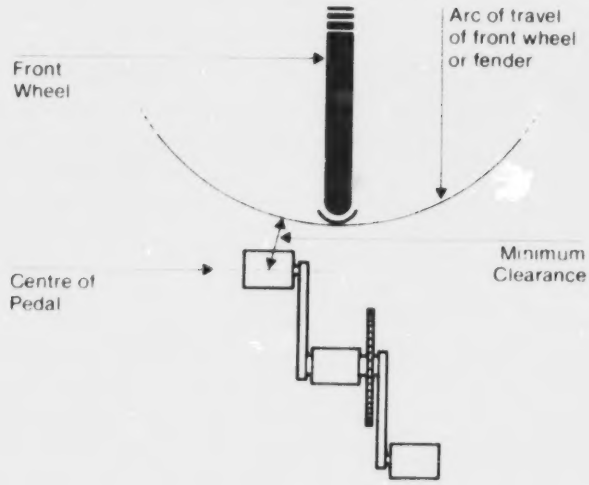


Figure 2

Pedal Clearance (Viewed From Above)

3.6 Handlebar

The overall width of the handlebar, with all accessories in place, shall be not greater than 700 mm nor less than 350 mm with no accessories attached. The hand grips on the handlebar shall be not higher than 400 mm above the saddle seating surface positioned at its lowest point, and with the handlebar stem at its highest point.

3.7 Caliper Brakes

3.7.1 Maximum Extension of Levers

3.7.1.1 The maximum dimension between the brake lever and the handlebar grip measured to the outside surfaces of lever and grip shall not exceed 90 mm at any point between the cable end of the lever and the lever's midpoint. The dimension may increase toward the open end of the lever but shall not exceed 100 mm except for the last 20 mm of the lever. For brake levers fitted to drop handlebars the maximum dimension of 90 mm shall apply to the contour of the lever intended for finger engagement, as shown in Figure 3.

3.7.1.2 Bicycles equipped with hand lever extensions shall be tested with the extension levers in place, and the hand lever extensions shall also be considered to be hand levers.

3.7.2 Shoe Assembly

The brake shoe assembly shall be so constructed as to provide positive retention of the block in the brake shoe.

3.7.3 Cable Assembly

When tested in accordance with Clause 5.9, the cable assembly shall not fracture or become damaged or distorted to the extent that the braking performance requirements in Clause 4.6 cannot be met.

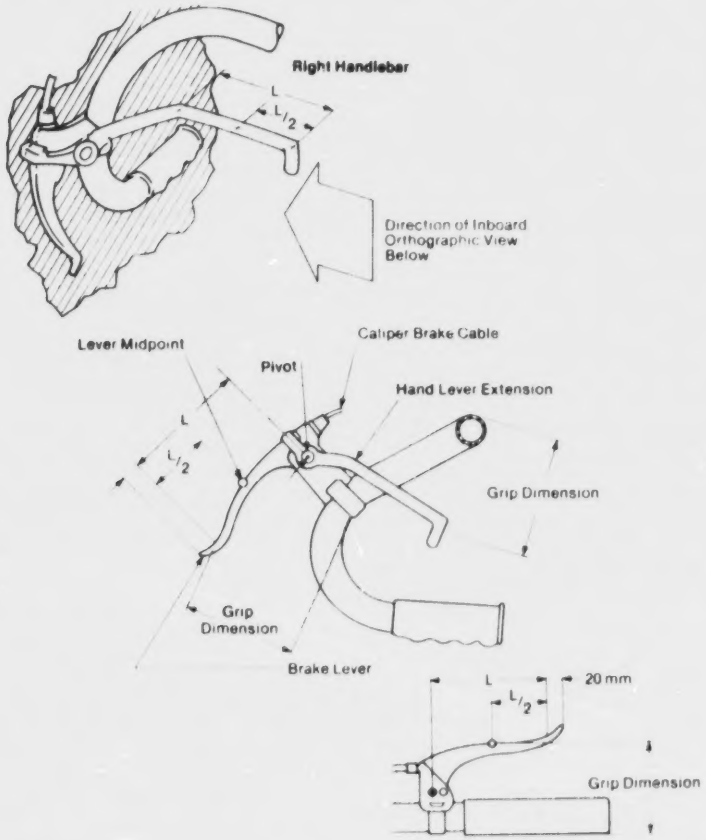


Figure 3

Brake Lever Extension

3.8 **Tires**

Except on tubular tires, the recommended tire inflation pressure shall be moulded on the sidewall and be readily visible after mounting.

3.9 **Controls**

All levers and controls shall have blunt ends.

Note: *Surfaces with burrs, flashings, or other sharp edges are not considered to be blunt.*

3.10 **Exposed Edges**

Exposed edges shall not be sharp or rough.

3.11 **Seat Post and Handlebar Stem**

A warning mark shall be permanently impressed a minimum of 2.5 diameters from the lower end of the seat post and handlebar stem to indicate minimum engagement with the seat post and head tube, respectively, of the bicycle but in no case shall the warning mark be less than 50 mm from the lower end of the seat post and handlebar stem.

3.12 Protrusions

There shall be no gear shift levers or other similar accessories above the uppermost horizontal frame member between the bicycle saddle and head tube that extends more than 90 mm from the rearmost portion of the head tube assembly.

3.13 Lighting

3.13.1 Reflectivity

3.13.1.1 General

All bicycles covered by this Standard shall be equipped with reflective devices to provide a minimum level of recognition and identification under illumination from the active low-beam headlamps of a motor vehicle. The mode of attachment of the reflective devices shall incorporate a distinctive, preferred assembly method to ensure proper alignment under normal operating conditions. Reflectors shall be located so as not to be obstructed in normal usage of the bicycle.

3.13.1.2 Rear Reflectors

All bicycles covered by this Standard shall be equipped with a rear reflex reflector that meets the following requirements:

(a) **Colour**—The colour shall be red;

(b) **Location**—The reflector shall be located facing the rear so as not to be obstructed at any time from the view of a vehicle approaching from the rear at a $\pm 50°$ angle to the axis of the bicycle.

3.13.1.3 Pedal Reflectors

All bicycles covered by this Standard shall be equipped with reflex reflectors on the pedals that meet the following requirements:

(a) **Colour**—The colour shall be amber or white;

(b) **Location**—Reflectors shall be located on both the front and rear surfaces of the pedals;

(c) **Damage Protection**—The reflectors shall be sufficiently recessed from the edge of the pedal or of the reflector housing to prevent contact of the lens with a flat surface placed in contact with the edge of the reflector housing.

3.13.1.4 Side Reflectors

All bicycles covered by this Standard shall be equipped with side reflectors. Reflectors shall be located on both sides of the bicycle and shall be applied in one of the following ways:

(a) An amber or white reflex reflector on the spokes of the front wheel of the bicycle and a red or white reflex reflector on the spokes of the rear wheel of the bicycle; or

(b) A continuous band of white or silver retroreflective material lying within 100 mm of the outer diameter of the front and rear tires.

3.13.1.5 Front Reflectors

All bicycles covered by this Standard shall be equipped with a front reflex reflector that meets the following requirements:

(a) **Colour**—The colour shall be white;

(b) **Location**—The reflector shall be located facing the front so as not to be obstructed at any time from the view of a vehicle approaching from the front at a ±50° angle to the axis of the bicycle.

3.13.1.6 Photometric Requirements

All reflex reflectors shall meet the minimum photometric requirements specified in Table 1, when tested in accordance with SAE Standard J594f, Reflex Reflectors; except that the reflectors shall be tested only in their vertical axial position (i.e., their mounting position for optimum reflectance). In addition, reflex reflectors shall be within the colour limits for red, amber, or white specified in SAE Standard J578c, Color Specification for Electric Signal Lighting Devices. The retroreflective material shall meet the photometric requirements of Table 2 when measured in accordance with the methods described in Clause 5.1.

3.13.1.7 Physical Requirements for Reflex Reflectors

3.13.1.7.1 Reflex reflectors shall be subjected to the warpage test specified in Clause 5.2.2. When so tested and after being cooled to room temperature the reflector shall not be distorted to the extent that it will not meet the photometric requirements in Clause 3.13.1.6.

3.13.1.7.2 Reflex reflectors shall be subjected to the mechanical impact test in Clause 5.2.3. When so tested, reflectors shall not crack.

3.13.1.7.3 Reflex reflectors shall be hermetically sealed for protection against the entrance of dust and moisture. There shall be no evidence of water between the reflector and the surface to which it is sealed when tested in accordance with Clause 5.2.4.

3.13.1.8 Physical Requirements for Retroreflective Strip

3.13.1.8.1 Retroreflective material shall meet 50 per cent of the values in Table 2 when tested in accordance with Clause 5.3.1.

3.13.1.8.2 Retroreflective material, when subjected to the test in Clause 5.3.2, shall have measured photometric values, at -4° entrance angle and 0.2° observation angle, not less than those specified in Table 2.

Table 1

Minimum Photometric Requirements for Reflex Reflectors

Test Points		Projected Candle--Power per Incident Illumination (milli-candelas per lux)			
		Reflectors Other Than Bicycle Pedals			Pedal Reflector
Observation Angle Degrees	Entrance Angle Degrees	Red	Amber	White	Amber
0.2	10 UV	420	1050	1670	—
	20 L	210	530	840	—
	30 L	190	470	740	—
	40 L	160	410	650	—
	50 L	140	350	560	—
	H V	630	1580	2510	—
	50 R	140	350	560	—
	40 R	160	410	650	—
	30 R	190	470	740	—
	20 R	210	530	840	—
	10 DV	420	1050	1670	—
0.3	10 UV	—	—	—	280
	20 L	—	—	—	140
	H V	—	—	—	350
	20 R	—	—	—	140
	10 DV	—	—	—	280
1.5	10 UV	4.6	12.1	18.6	12.1
	20 L	2.8	7.4	11.1	7.4
	30 L	2.8	7.0	11.1	—
	40 L	2.8	7.0	11.1	—
	50 L	2.8	7.0	11.1	—
	H V	6.5	16.7	26.0	16.7
	50 R	2.8	7.0	11.1	—
	40 R	2.8	7.0	11.1	—
	30 R	2.8	7.0	11.1	—
	20 R	2.8	7.4	11.1	7.4
	10 DV	4.6	12.1	18.6	12.1

Note: *The candle-power which the reflex reflector is projecting towards the observation point, and the illumination on the reflex reflector from the source of illumination shall be measured. The recorded measurement is the quotient of the projected candlepower divided by the illumination in lux.*

Table 2

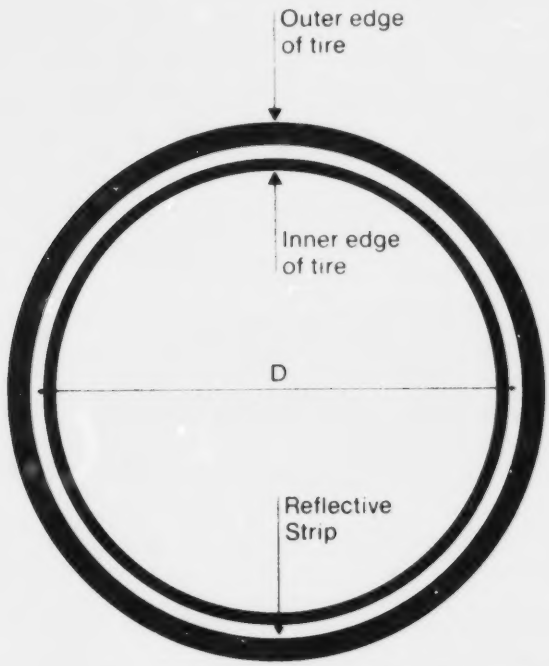
Minimum Candle-Power per Incident Illumination for a Unit Area of Retroreflective Reflector

Observation Angle Degrees	Entrance Angle Degrees	C.I.A (milli-candelas per lux per m^2)
0.2	-4	13.0 D
0.2	20	11.4 D
0.2	40	7.5 D
1.5	-4	1.3 D
1.5	20	1.1 D
1.5	40	0.8 D

Where D represents the shortest distance, in millimetres, of a line drawn from a point midway in the width of the reflective strip on the tire sidewall to the most distant point midway in the width of the same reflective strip, as shown in Figure 4.

C.I.A. is the quotient of the Specific Intensity (C.I.L.) divided by the actual area of the retroreflector.

Note: *This quantity (C.I.A.) treats the retroreflector as an apparent point source whose retroreflected luminous intensity is dependent on the area of retroreflector surface involved.*



Note: *For example, D on a* 660 mm *tire is approximately* 610 mm.

Figure 4

Standard Tire at 0° (Not Drawn to Scale)

3.13.2 Headlamps

3.13.2.1 Headlamps are not required by this Standard but when they are used, they shall comply with the requirements of Clause 3.13.2.

3.13.2.2 The light intensity of a bicycle headlamp shall be at least 100 candle-power at the 0 axis or near to it. The candle-power at 15° from the 0 axis in any direction shall be no less than 10 per cent of the measured maximum intensity. These values shall be obtained with the dynamo, (generator), supplied with the headlamp or battery producing the rated bulb voltage that is specified by the headlamp manufacturer.

3.13.3 Rear Lamps

3.13.3.1 Rear lamps are not required by this Standard but when they are used, they shall comply with the requirements of Clause 3.13.3.

3.13.3.2 Any rear lamp assembled as standard equipment shall be located so as to give unobstructed visibility viewed from a vehicle approaching at an angle within 30° from the rear.

3.13.3.3 Rear lamps shall meet the photometric requirement for a red side marker as specified in SAE Standard J592f, Clearance, Side Marker, and Identification Lamps, when operated at rated voltage.

3.14 Wheel Structure

The runout tolerance on wheels measured from the centre plane of the hub assembly shall be ± 2 mm. The tolerance for out-of-round on wheels shall be ± 2 mm. Both tolerances shall apply to bicycles prior to test and shall be measured on the rim.

4. Mechanical Test Requirements

4.1 Frame—Dynamic Test

When tested in accordance with Clause 5.4 inspection of the frame shall reveal no rupture or separation of frame parts or joints, nor permanent set in excess of 15 mm in any direction.

4.2 Fork—Static Load Test

When tested in accordance with Clause 5.5, the fork shall absorb an energy equivalent to 40 J with a deflection in the direction of the force of no more than 65 mm.

4.3 Steering Assembly

4.3.1 The significance of the test is the assurance of the strength and integrity of the steering assembly by means of torque tests to determine slippage.

4.3.2 Inspection shall reveal no slippage or failure of any of the steering components. Slippage of the handlebar grip does not constitute a failure.

4.3.3 The procedure used for testing the steering assembly shall be as specified in Clause 5.6.

4.4 Handlebar Grip Security

At any temperature between 5°C and 35°C, handlebar grips shall not pull off their handlebars when an axial load is applied to the end of the handlebar grip, as specified in Clause 5.7.

4.5 Structural Integrity Test Requirements

In order to assure proper assembly and overall structural integrity, the complete bicycle shall be mounted on a test machine and fitted with loads totalling not more than 90 kg for regular frames and not more than 165 kg for tandem frames. Inspection after the test shall reveal no failure that would be hazardous to the operator, and the bicycle shall be capable of being ridden without hazard. The test procedure shall be as specified in Clause 5.8.

4.6 Braking

4.6.1 Braking tests shall be performed as specified in Clause 5.9 except that coaster brakes shall not be tested for wet brake effectiveness.

4.6.2 For the tests described in Clause 5.9, the maximum input force that may be applied to achieve braking action shall be:

(a) Coaster brakes—310 N;

(b) Handle-operated brakes—180 N each.

4.6.3 Maximum stopping distance for the dry brake test shall be 15 m.

4.6.4 Maximum stopping distance for the wet brake test shall be 15 m.

APPENDIX G

LIST OF CYCLING SAFETY FILMS

Cycling Safety and Education Films
Currently available in Ontario

A. Ontario Safety League
82 Peter Street
Toronto, Ontario M5V 2G5

Telephone 416/593-2670

- Bike People (11 minutes)
  Basic bicycle safety equipment, theft protection
- Straight Talk About Defensive Biking (9 minutes)
  Fundamentals of bike riding
- Step Lightly (12 minutes)
  Demonstrates the effectiveness of reflective material
- Safe Bicycle (12 minutes)
  Support for the "Safe Bicycling Course"
- Only One Road (26 minutes)
  Stresses the need for car/bicycle co-operation on the road

B. Canadian Automobile Association
2 Carlton Street
Toronto, Ontario M5B 1K4

Telephone: 416/964-3170

- Bicycle Border Patrol (4 minutes)
  Where small kids should ride to be safe
- Dream Bike (4 minutes)
- Bikes go With the Flow (4 minutes)
  Why to ride with the traffic flow
- Only One Road (26 minutes)
  Stresses the need for car/bicycle co-operation on the road
- Bicycling Visual Skills (13 minutes)
  Proper road scanning and traffic reading
- Bicycling on Three Wheels (20 minutes)
  The proper use of tricycles

C. The Insurance Bureau of Canada
13th Floor
181 University Avenue
Toronto, Ontario M5H 3M7

Telephone: 416/362-2031

. Cars and Bikes (13 minutes)
On film and video

D. Ontario Cycling Association
1200 Sheppard Avenue East
Willowdale, Ontario M2K 2X1

Telephone: 416/495-4141

. Bicycling Safety on the Road (26 minutes)
Safe road techniques for cyclists